

IDAHO NATIONAL ENGINEERING AND
ENVIRONMENTAL LABORATORY

INTEGRATED SAFETY MANAGEMENT SYSTEM
PHASE II, PART II
VERIFICATION

FINAL REPORT
Volume II

March 2000

U.S. Department of Energy
Washington, D.C.

Sub-Team: DOE	FUNCTIONAL AREA: DOE DATE: March 23, 2000
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DEPARTMENT OF ENERGY (DOE)

OBJECTIVE: DOE.1 DOE procedures and mechanisms are established to help ensure that hazards are analyzed; controls are developed; work is formally and appropriately authorized and performed safely; and feedback and improvement programs are in place and effective. DOE line managers are using these processes effectively, consistent with FRAM and FRA requirements, and are involved in the review of safety issues and concerns and have an active role in authorizing and approving work and operations. (CE II-7, CE II-8)

CRITERIA:

1. DOE procedures and/or mechanisms are in place that establish a process for confirming readiness and authorizing operations.
2. DOE procedures and/or mechanisms are established to help ensure that the safety management system is properly implemented and line management oversight of the contractor's worker, public, environment, and facility protection programs is performed.
3. DOE procedures and/or mechanisms require day-to-day operational oversight of contractor activities through Facility Representatives.
4. DOE procedures and/or mechanisms are established to help ensure the implementation of quality assurance programs and ensure that contractors implement quality assurance programs.
5. DOE procedures and/or mechanisms are in place to help ensure that the contractor's hazard analysis covers the hazards associated with the work and is sufficient for selecting standards.
6. DOE procedures and/or mechanisms are in place in which DOE directs the contractor to propose facility or activity-specific standards tailored to the work and the hazards. DOE procedures require that appropriate safety requirements in necessary functional areas are included in contracts.
7. DOE procedures and/or mechanisms are in place that direct DOE line manager oversight to ensure that implementation of hazards mitigation programs and controls are established.

8. DOE procedures and/or mechanisms are in place that direct the preparation of the authorization basis documentation and oversee the implementation by the contractor. Procedures for development, review, approval, maintenance, and utilization of Authorization Agreements are implemented.
9. DOE procedures and/or mechanisms require that contractors develop a lessons-learned program and monitor its implementation. A process is established for reviewing occurrence reports and approving proposed corrective action reports. A DOE process is established and effectively implemented to continuously improve efficiency and quality of operations. Corrective actions are developed, implemented, and tracked in order to profit from prior experience and the lessons learned. DOE provides effective line oversight of the contractor's self-assessment programs.

APPROACH:

Record Review: Review documents pertaining to the implementation of DOE at IFF and SMC documents such as the, "DOE Integrated Safety Management Functions, Responsibilities and Authorities" to assess that line management is responsible for safety, and that their responsibility is clearly defined in roles and responsibilities.

Review documents relating to the implementation of DOE programs at IFF and SMC related to "Environment, Safety, Health and Quality Assurance Oversight" and "Independent Assessment." As possible, sample select surveillance reports for the IFF and SMC to determine if mechanisms are established to help ensure line management performs oversight of the contractor's ISMS. Review documentation pertaining to the ID Oversight, Review Schedules, and reported results to assess the adequacy of this oversight at IFF and SMC. Review ID Facility Representative (FR) Position Descriptions, Performance Agreements, and FR reports and oversight documentation to determine if mechanisms are in place to require day to day operational oversight by FRs.

Review documentation pertaining to the implementation of IFF and SMC of documentation on the "Quality Assurance Program" and Quality Program Plans (QPPs) to determine if they help ensure the implementation of quality assurance program by ID and the Contractor. Review documents such as ID Notice 420.A1, "Safety Basis Review and Approval Process" to determine if this mechanism is sufficient and tailored to facility work and hazards.

Review documentation related to the implementation at IFF and SMC of activities such as "DOE-ID Performance Measure, Trend Analysis, and Communications" to determine if this mechanism requires contractors to develop a lessons-learned program and monitor its implementation. Review the documentation pertaining to the results of the implementation for IFF and SMC, "DOE-ID Issue Management," to evaluate adequacy of implementation to continuously improve efficiency and quality of operations. Review documentation on the "DOE-ID Self-Assessment" to determine the adequacy of the implementation of the ID management self-assessment program at IFF and SMC.

Interviews: Interview Facility Directors and Site Area Directors and discuss work authorization and performance to determine if there are adequate mechanisms to ensure that work is properly authorized at all levels for IFF and SMC.

Interview DOE and Contractor Line Management personnel at all levels and discuss the IFF and SMC oversight programs. Discuss the Facility Representative (FR) programs with facility representatives and contractor personnel to determine if the FR program is effective. Discuss oversight and assessment programs with DOE staff, to assess their understanding of line management responsibility for safety and clear roles and responsibilities.

Interview DOE personnel such as Facility Directors, and other Division Directors to assess their review and approval of the results of the contractor's ISMS implementation, their understanding of the ISMS procedures and principles, their oversight of the contractor's self-assessment programs, and the DOE-ID management self-assessment program at IFF and SMC.

Observations: As possible, observe IFF and SMC facility representative and DOE staff oversight activities. These activities could include such activities as: "Environment, Safety, Health and Quality Assurance Oversight" activity, the review of Occurrence Reports by DOE ID personnel, "walkdowns" of the facilities with the FR as possible, Facility Director Conference Calls, Facility Director staff meetings, and interface with the contractor to determine line management understanding and awareness of operations.

Record Review

- DOE-ID Guide G 450.E-1, ID ISMS Description Guide, Rev 1, 2/2/00
- INEEL PDD-1004, INEEL Integrated Safety Management System (ISMS) Program Description Document (PDD), Rev 4, 2/25/00
- DOE-ID N 411.1, DOE Integrated Safety Management Functions, Responsibilities, and Authorities, 2/8/99
- DOE-ID N 425.1, Startup and Restart of Nuclear Facilities, 11/10/97
- DOE-ID N 450.A, Environment, Safety, Health, and Quality Assurance Oversight, 8/27/99
- DOE-ID Order 220.A, DOE ID Self-Assessment, 8/20/99
- DOE-ID Facility Representative (FR), Facility Engineer (FE), and Facility Director (FD) Position Descriptions and Performance Agreements for the IFF and SMC, 1999 (series)
- DOE-ID Order 414.1, Quality Assurance Program, 7/26/99
- DOE-ID OPEM 410.C-1, DOE ID OPE Operational Excellence Manual, 4/7/99
- DOE-ID Technology Programs and Operations (TPO) Draft AM Manual, 3/00
- DOE-ID AM Organization Quality Program Plans (QPPs) for IFF and SMC, (series)
- DOE-ID N 420.A1, Safety Basis Review and Approval Process, 5/11/98
- DOE-ID Order 210.A, DOE-ID Performance Measures, Trend Analysis, and Communications, 8/27/99
- DOE-ID Order 410.A, DOE-ID Issue Management, 5/10/99
- DOE-ID Manual, ID M-410.A-1, Rev 0, Issue Management Manual, 5/10/99
- DOE-ID Order O 220.A, DOE-ID Self-Assessment, 8/20/99

- DOE-ID M 440.A-1, DOE ID Federal Employee Operational Safety and Health Manual, 12/28/99
- DOE-ID G230.A-1, Lessons Learned Program Management, 11/12/98
- DOE-ID Order 120.A1, General Business Planning, 8/19/99
- DOE-ID N 251.1, ID Directives System, 5/10/99
- DOE-ID Order 450.A, Line Environmental, Safety and Health (ES&H) Oversight, 8/27/99
- DOE-ID N 450.B, Imminent Danger Response Action and Stop Work, 6/16/97
- DOE ID-10671, INEEL/EX-98-01172, Rev 4, INEEL CO2 Accident Corrective Action Implementation Plan Report, 9/99
- DOE-ID N 440.A, DOE ID Federal Employees Occupational Safety and Health Handbook, 11/10/98
- DOE-ID IDM 360.A-1, Technical Qualification Program Manual, 7/28/99
- Specific Manufacturing Capability (SMC) SMC-RD-039, SMC Safety Analysis Report Review, ID3, of March 2000
- SMC Project Management Plan of January 2000
- SMC Project Field Element Manager (FEM) Functions and Responsibilities Matrix, Rev 0, 2/23/00
- US Army – DOE Inter Agency Agreement Memorandum of Understanding (MOU) for the SMC Project of 19 October 1999
- SMC In-Production Review (IPR) of 19 October 1999
- Current SMC Budget Documentation for current and projected years with supplementary project information, including: SMC Five Year Plan of 21 October 1999, current SMC Performance Evaluation Management Plan (PEMP), current SMC Program Evaluation Guidance (PEG), and current SMC Performance Based Incentives (PBIs), (series)
- Documents pertaining to the DOE implementation that supports the INEEL ISMS Implementation of PDD–1004 for IFF and SMC
- DOE-ID current SMC Individual Development Plans (IDPs)
- DOE-ID SMC Qualification and Training Records (series, samples)
- DOE-ID TPO-SMC-00-003 SMC current Self-Assessment Schedule, 2/17/00
- DOE-ID TPO-SMC-00-013 SMC current Environment, Safety, Health, and Quality Assurance (ESH&QA) Oversight Plan, 3/10/00
- DOE-ID IFF and SMC Self-Assessment and Oversight Reports, 1999-2000, including: the IFF and SMC Facility Management Team Roles and Responsibilities Self-Assessments for IFF and SMC of January and March 2000 (respectively), SMC Radiological Control Manual Surveillance of March 2000, IFF and SMC Lockout and Tagout Surveillances of November and December 1999, and March 2000 (respectively)
- SMC Program Overview for the ISMS Phase II Verification Team, 3/1/00 (series)
- Idaho Falls Facilities (IFF) Overview for the ISMS Phase II Verification Team, 2/29/00 (series)
- SMC Monthly Progress Report of January 2000
- Technology Programs and Operations (TPO) and Office of Research and Development Memorandum of Understanding (MOU) for the responsibilities for operations and management of research laboratories and other facilities, Rev 1, 3/2/00

- INEEL ESH&QA Performance Measures and Tracking Report (Issue #8) of January 2000, for IFF and SMC
- INEEL Overview Presentation by the Contractor, DOE ID, IFF and SMC for the ISMS Phase II Verification Team, 2/28/00 (series)
- Bechtel BWXT Idaho (BBWI), CCN-00-002362, INEEL Independent Assessment Annual Summary of 16 December 1999, re IFF and SMC
- SMC-PLN-009 SMC Quality Program Plan (QPP), Rev 2, 3/14/00
- Additional recent samples of Assessments, Self-Assessments, Oversight, and Surveillance reports for IFF and SMC, 1999-2000 (series)
- DOE- ID Oversight and Review Schedules for IFF and SMC, 2000 (series)
- DOE-ID Memorandum for the record for the INEEL Research Center (IRC) Hazard Classification of 24 August 1999, in support of the implementation of DOE-ID Notice 420.A1 for Safety Basis Review and Approval Process
- INEEL IFF Authorization Bases for Research and Development Facilities, JCM-19-99, Rev 1 of 22 December 1999 in support of the maintenance of the Safety Basis at IFF facilities
- Samples of DOE-ID Tracking of Corrective Actions through completion for items identified through Oversight and Self-Assessments at IFF and SMC of 1999-2000 with notes, (series)
- Samples of DOE-ID Recommendations, Lessons Learned, and Suggestions for Improvement for activities associated with the 1998 Fatal Accident at the INEEL (TPO-AM-00-012) of 1999 and 2000
- DOE-ID CO₂ Accident Corrective Action Project (CAP) Report for January 2000, CCN 00-004496, of 16 February 2000
- DOE-ID CO₂ CAP Implementation Plan Report for January 2000 with Draft Forwarding Letter of February 2000
- DOE-ID INEEL CO₂ CAP Implementation Plan, DOE/ID-10671, INEEL/EXT-98-01172, Revision 4 of September 1999
- DOE-ID INEEL CO₂ CAP Implementation Plan, DOE/ID-10671, INEEL/EXT-98-01172, Draft Revision 5 of February 2000, as of 16 February 2000
- BBWI CCN 00-005702 CO₂ Accident Corrective Action Project Report for February 2000 of 10 March 2000
- BBWI CCN 00-005857 INEEL EH Oversight Legacy Issues Corrective Action Project Report for February 2000 of 10 March 2000

Interviews Conducted

- DOE-ID Assistant Manager (AM) for Environmental Management (EM)
- DOE-ID Deputy AM for EM
- DOE-ID AM for Technical Support
- DOE-ID Operational Safety Division Director
- DOE-ID AM for Technology Programs and Operations
- DOE-ID Deputy AM for Technology Programs and Operations (TPO)
- DOE-ID Director of the INEEL ISMS Project Office

- DOE-ID Test Reactor Area (TRA) and Specific Manufacturing Capability (SMC) Program Director
- DOE-ID SMC Program Director (PD)
- DOE-ID SMC Deputy Program Director and Facility Director (FD)
- DOE-ID SMC Facility Representative (FR)
- DOE-ID SMC Facility Engineer (FE)
- BBWI SMC Site Area Director (SAD)
- BBWI SMC Facility Operations Manager
- DOE-ID Idaho Falls Facilities (IFF) Acting FD, and IFF FR/FE
- DOE ID IFF Relieving FD
- BBWI IFF SAD
- BBWI INEEL Site Operations Director (SOD)
- DOE- ID Project Manager for Implementation of DNFSB 98-1 for INEEL EH Legacy Issues
- DOE- ID Assistant Project Manager for Implementation of DNFSB 98-1 for EH Legacy Issues at the INEEL
- DOE-ID Environmental Programs and Settlement Agreement Division Director
- DOE-ID Performance Assurance Division Director
- DOE-ID Facility Engineers and Subject Matter Experts (SMEs) (2)
- DOE-ID Issues Management and Lessons Learned Program Manager
- DOE-ID Issues Management Project Manager
- DOE-ID EM Division Directors (5)

Observations

- DOE-ID and BBWI ISMS Status Presentations (series)
- Tours of IFF with specific presentation on IFF and specific presentation on SMC
- DOE ID Facility Management Staff Meeting
- SMC SAD and DOE-ID SMC FD Performance Monitor Meeting
- Walkdown of IFF Leased Laboratory Facilities with the IFF Acting FD/FR
- Walkdown of SMC with SMC FR
- DOE-ID FD Weekly Facility Director Conference Call
- Demonstration of the INEEL Lessons Learned Net Access

Discussion of Results

Background: The INEEL Integrated Safety Management System Verification Phase II (ISMSV-II) for five pilot facilities, completed in September 1999, identified several DOE-ID strengths, and several opportunities for improvement in the DOE-ID efforts for the INEEL ISMS implementation. That ISMSV-II encouraged DOE-ID to maintain their ISMS momentum during the transition of INEEL M&O Contractors that started in July and completed in September 1999.

This ISMSV-II Part II, of March 2000, continued the ISMSV efforts and focused specifically on the Idaho Falls Facilities (IFF) and Specific Manufacturing Capability (SMC) facilities. Both of

these organizations are unique. The IFF facilities are classified for facility hazards as “Other Industrial – Not Requiring Additional Safety Analysis (NRASA).” The SMC provides specific project support for the US Army. The remaining INEEL facilities are scheduled for their ISMSV-II evaluation in May 2000. That will complete the INEEL ISMSV-II evaluations.

Since the September 1999 ISMSV-II, DOE-ID has provided oversight as the new M&O Contractor continued the implementation of the ISMS. Additionally, DOE-ID initiated a reorganization of their office, and procedural and process revisions to improve their operations. The reorganization is nearing completion. Some of the other actions are now completed, some are to be completed soon, and some actions are to be completed by May 2000.

Results: Overall, based on the observations from this ISMSV-II for IFF and SMC and the previous ISMSV-II results, the DOE-ID procedures and mechanisms are adequately established to execute their ISMS responsibilities at INEEL. The DOE-ID line managers are using these processes satisfactorily, consistent with their ISMS requirements for IFF and SMC. The DOE-ID line managers are adequately involved in reviewing safety issues and concerns, and they have an active role in authorizing and approving work and operations at INEEL.

The DOE-ID IFF and SMC organizations have adequately implemented their ISMS to execute their responsibilities and provide oversight for the contractors’ ISMS at IFF and SMC. The DOE-ID organization provides adequate oversight at IFF and SMC for the five ISMS Core Functions: (1) Define Scope; (2) Identify Hazards; (3) Implement Controls; (4) Perform Work; and (5) Feedback and Improvement.

During this review, the personnel interviewed included DOE-ID and DOE-ID IFF and SMC personnel at all levels, INEEL contractor line management and support personnel at all levels, and line management and operational personnel at IFF and SMC. These interviews, discussions, and seminars focused on the IFF and SMC ISMS systems and supporting processes, DOE-ID systems and processes for assessment and oversight programs, and the processes directly associated with safety, hazards, maintenance, and operations at IFF and SMC.

The DOE-ID IFF and SMC Facility Representatives (FRs), Facility Engineers (FEs), Facility Directors (FDs), and Program Directors are knowledgeable, actively engaged in IFF and SMC operations, and have established a sound rapport with the contractor organizations at their facilities and with the other DOE-ID support personnel.

Throughout this review the continuing progress made by DOE-ID was evident, particularly in the spirit and performance of the DOE-ID line management, and their interface with the contractor. Of particular note is the strong, sustained performance of the EM Deputy AM for Operations, who also serves as TPO Deputy AM. This progress has been essential to continuing improvement during the ISMS implementation at INEEL.

The positive spirit of the DOE-ID organization to ISMS, their demonstrated teamwork with contractor personnel, and their strong sense of line management responsibility for safety for IFF

and SMC are substantial strengths. (DOE 1-2) These strengths were also previously noted by the ISMSV-II in September 1999.

The review of records focused on documentation relating to the implementation and execution of the DOE-ID ISMS responsibilities for IFF and SMC. This documentation included the DOE-ID ISMS description and supporting documentation, IFF and SMC project and program documentation, major DOE-ID IFF and SMC documentation for the supporting assessment and oversight programs, and documentation associated with programs, safety, hazards, maintenance, and operations at IFF and SMC. Overall this documentation provides adequate and consistent guidance delineating the DOE-ID organization's roles and responsibilities for safety and oversight at IFF and SMC.

The review of this documentation, combined with the results of the subsequent personnel interviews indicated that DOE-ID has sufficient processes in place to confirm readiness prior to authorizing operations for IFF and SMC.

The DOE-ID SMC staffing is adequate to support their ISMS responsibilities, and they have done well in executing these responsibilities.

The DOE-ID IFF is currently staffed by only one person, who is the Acting IFF Facility Director, the IFF Facility Representative, and the IFF Facility Engineer. She has done well in executing these responsibilities for the short term, however, this level of staffing will not meet the sustained DOE-ID ISMS expectations for the IFF. (DOE 1-1) A new IFF Facility Director is in the turnover process and expects to complete his relief in April, and the current Acting FD/FR/FE will soon depart for an extended leave. An additional person is now in training to become a Facility Representative who will concentrate on Laboratories, and will divide his responsibilities between the IFF Laboratories and the Site Laboratories. He currently is not scheduled to complete his FR qualifications in several months. It is important that DOE-ID establish and then maintain an adequate staffing level to support continued safe operations that is appropriate for the hazards, expectations, and operations at IFF.

The review of IFF and SMC records indicated that DOE-ID mechanisms are adequately established to provide oversight of the contractor and help ensure that the ISMS is satisfactorily implemented for IFF and SMC. These line oversight mechanisms are executed through DOE-ID Program Directors (PDs), Facility Directors (FDs), Facility Representatives (FRs), senior DOE-ID line management, and DOE-ID support personnel. Subsequent personnel interviews and observations, during this review, supported this conclusion.

The review of records, combined with interviews and observations of the IFF and SMC FRs indicated that DOE-ID IFF and SMC Facility Representatives' procedures and mechanisms are sufficiently implemented to provide day-to-day operational oversight of the contractor. A review of some of the FR Position Descriptions and Performance Agreements for IFF and SMC indicated that this documentation adequately described their positions for their responsibilities. However, as discussed above, the DOE-ID IFF staffing needs to be evaluated and resolved.

DOE-ID is in the process of revising their Functional Roles and Responsibilities and the draft document is being evaluated for comments. This revision is of particular importance because it must accurately reflect the DOE-ID reorganization, which changes the Roles and Responsibilities significantly in some areas. This revision must also ensure that the DOE-ID ISMS requirements are adequately met by the new organization. The approved version of this revised document should be reviewed during the May 2000 ISMSV-II (Part III).

DOE-ID IFF and SMC FR activities are done in accordance with the DOE-ID directives and processes, using approved plans, with sufficient formality and rigor. The documentation reviewed included the results of assessments, and DOE-ID operational and oversight documentation for IFF and SMC.

Additionally, DOE-ID is now continuing their efforts to improve documentation and execution of the ISMS, but all of these efforts have not yet been completed. For example, DOE-ID action is still in progress to improve areas such as Quality Assurance (QA), DOE-ID Self-Assessment efforts, and the DOE-ID Issue Management systems.

Samples of DOE-ID IFF and SMC Oversight Activities Reports for IFF and SMC for October through January, some Self-Assessment Reports for IFF and SMC for October through December and Planned Oversight Activities Schedules for the remainder of this fiscal year were reviewed. The results of these reviews indicated that the IFF and SMC FDs and FRs are providing adequate oversight in the execution of their responsibilities for these areas. These assessments included an adequate spectrum of operational requirements such as lockout and tagouts, issue management, procedures, and execution of responsibilities. This was also noted during the ISMSV-II for the five pilot facilities and indicates the continuing progress and improvement in oversight activities at the facilities assessed during the ISMSV-II (s).

A review of some DOE-ID documentation associated with the Lessons Learned and Suggestions for Improvements Associated with the INEEL 1998 Fatal Accident indicated that DOE-ID is adequately pursuing and following these corrective actions.

The DOE-ID mechanisms are in place. Some are also currently being revised and improved for the oversight of the contractors' quality assurance programs for IFF and SMC. These mechanisms include implementation of Environmental, Safety, Health, and Quality Assurance Oversight to ensure that the contractors' Quality Assurance Plan is adequately implemented for IFF and SMC. The DOE-ID reorganization and DOE-ID procedure/processes are also planned to improve the DOE-ID oversight in these areas, as well as in Quality Assurance (QA) and Performance Assessment (PA). While all of these DOE-ID improvement efforts are not yet done, and their completion may require additional action due to the reorganization, the existing mechanisms are adequate for IFF and SMC.

Documentation outlining the DOE-ID processes for oversight of the IFF and SMC facility safety basis programs is sufficient. The results of the record review indicated that these processes have been adequately implemented for their respective facilities. The review of records, combined

with the personnel interviews, indicated that the IFF and SMC Facility Directors, Deputy Facility Directors, Facility Representatives and Engineers are adequately involved in their operations.

This review, combined with subsequent personnel interviews, indicated that DOE-ID has sufficiently implemented their processes to provide oversight of: the contractor's hazard analysis, tailored safety requirements, and the implementation hazard controls for IFF and SMC.

The DOE-ID IFF and SMC documentation provides sufficient guidance for the implementation of feedback and continuous improvement processes at these facilities, and these processes are adequately implemented. A sampling of the results of assessments and self-assessments indicated that these processes are improving, but there is still additional room for improvement in the areas of discrepancy identification, correlation, tracking, corrective actions, and trending, as the contractor improves their self-assessment processes.

The observation of activities and evolutions during this ISMSV-II included: DOE-ID and DOE-ID IFF and SMC meetings with INEEL contractor line management and support personnel; meetings with IFF and SMC line management and operational personnel; tours and walkdowns with the Facility Representatives (FRs) and managers of the IFF and SMC. These observations, meetings, demonstrations, tours, and walkdowns focused specifically on the IFF and SMC ISMS systems and supporting processes, DOE-ID systems and processes for assessment and oversight programs, and the processes directly associated with safety, hazards, maintenance, and operations at IFF and SMC.

The results of these observations also supported the conclusions reached by the record review and interviews. Overall the DOE-ID has adequate guidance and processes in place to execute their roles and responsibilities for ISMS safety and oversight at IFF and SMC.

Conclusion The Objective has been met.

The DOE-ID IFF and SMC organizations have adequately implemented their ISMS to execute their responsibilities. DOE-ID can provide adequate oversight for the contractor's ISMS at IFF and SMC and for all five of the ISMS Core Functions: (1) Define Scope; (2) Identify Hazards; (3) Implement Controls; (4) Perform Work; and (5) Feedback and Improvement.

Issue(s)

- The DOE-ID IFF level of staffing will not meet the sustained DOE-ID ISMS expectations for the IFF. (DOE 1-1)

Strength(s)

- The positive spirit of the DOE-ID organization to ISMS, their demonstrated teamwork with contractor personnel, and their strong sense of line management responsibility for safety for IFF and SMC are substantial strengths. (DOE 1-2)

Inspector _____ Robert Baeder	Team Leader _____ Roy Schepens
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Sub-Team: DOE	FUNCTIONAL AREA: EH-1 DATE: March 23, 2000
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Department of Energy Resolution of EH Items

This incorporates the recently mandated requirements to assess the Resolution of Items identified by DOE-EH. This CRAD adapts the combined objective principles of those requirements.

OBJECTIVE:

EH.1 The process for addressing and resolving safety issues identified by EH-2 as outlined in directives and procedures has been effectively applied.

CRITERIA:

1. The directives and implementing documents provide for a consistent and disciplined process, with clear assignment of responsibilities and authorities for developing and implementing Corrective Action Plans (CAPs) in response to issues identified by EH-2. (As adapted from mandated EH Requirements)
2. Directives and procedures include requirements for (1) the preparation of formal CAPs in response to EH-2 issues; (2) elevation of safety, technical, managerial, budget, prioritization, timeliness, inadequate response or other issues for resolution; and (3) effective use of a Corrective Action Tracking System; and identification and dissemination of lessons learned consistent with ISM implementation. (As adapted from mandated EH Requirements)
3. DOE field offices have a process for ensuring that contractors do what is necessary to meet obligations of this program. (As adapted from mandated EH Requirements)
4. Reviews were done, corrective action plans were developed, and any issues were pointed out for improvement. Each organization understands its responsibility and did their part in conducting reviews and developing and approving corrective action plans within established time frames.
5. Safety issues were addressed, resolved, and verified adequately and in a timely manner. Each organization did their part in implementing, reviewing, and closing issues, and closure was independently verified.
6. Resultant corrective actions are being applied to similar hazardous conditions at other facilities, sites, or programs.

7. Repeated problems of the same type have not been identified in subsequent reviews at the same site/facilities.

APPROACH:

Record Review: Review the INEEL identified issues, a sample of the Office of Oversight assessment reports for INEEL issued since April 1999, and a sample of legacy issues identified and tracked by INEEL. Review a sample of documentation for closure of identified issues.

Interviews: Interview DOE-ID personnel responsible to discuss how particular issues were handled and whether any problems were identified in the process. If problems were identified, how were these addressed, and are there any recommendations for improvement in the process. Also, the process for reviewing and applying lessons learned at other sites will be discussed.

Observations: As possible, observe actual meetings involving the development of CAPs within and between contractors and the DOE-ID office, and between the DOE-ID and HQ organizations, to observe the practical application and results of the procedures. As possible, observe the DOE-ID process to validate closure of the contractor's issues.

Record Review

- DOE-ID Notice 450.A, Environment, Safety, Health, and Quality Assurance Oversight, 8/27/99
- DOE-ID Order 220.A, DOE ID Self-Assessment, 8/20/99
- DOE-ID Order 414.1, Quality Assurance Program, 7/26/99
- DOE-ID OPEM 410.C-1, DOE ID OPE Operational Excellence Manual, 4/7/99
- DOE-ID Technology Programs and Operations (TPO) Draft AM Manual, 3/00
- DOE-ID AM Organization Quality Program Plans (QPPs) for IFF and SMC, (series)
- DOE-ID Order 210.A, DOE-ID Performance Measures, Trend Analysis, and Communications, 8/27/99
- DOE-ID Order 410.A, DOE-ID Issue Management, 5/10/99
- DOE-ID Manual, ID M-410.A-1, Rev 0, Issue Management Manual, 5/10/99
- DOE-ID Order O 220.A, DOE-ID Self-Assessment, 8/20/99
- DOE-ID G230.A-1, Lessons Learned Program Management, 11/12/98
- DOE-ID Order 450.A, Line Environmental, Safety and Health (ES&H) Oversight, 8/27/99
- DOE-ID N 450.B, Imminent Danger Response Action and Stop Work, 6/16/97
- DOE-ID-10671, INEEL/EX-98-01172, Rev 4, INEEL CO2 Accident Corrective Action Implementation Plan Report, 9/99
- DOE-ID IFF and SMC Self-Assessment and Oversight Reports, 1999-2000, including: the IFF and SMC Facility Management Team Roles and Responsibilities Self-Assessments for IFF and SMC of January and March 2000 (respectively), SMC Radiological Control Manual Surveillance of March 2000, IFF and SMC Lockout and Tagout Surveillances of November and December 1999, and March 2000 (respectively)

- INEEL ESH&QA Performance Measures and Tracking Report (Issue #8) of January 2000, for IFF and SMC
- INEEL Overview Presentation by the Contractor, DOE ID, IFF and SMC for the ISMS Phase II Verification Team, 2/28/00 (series)
- Bechtel BWXT Idaho (BBWI), CCN-00-002362, INEEL Independent Assessment Annual Summary of 16 December 1999
- Samples of DOE-ID Tracking of Corrective Actions through completion for items identified through Oversights and Self-Assessments at IFF and SMC of 1999-2000 with notes, (series)
- Samples of DOE-ID Recommendations, Lessons Learned, and Suggestions for Improvement for activities associated with the 1998 Fatal Accident at the INEEL (TPO-AM-00-012) of 1999 and 2000
- DOE-ID CO2 Accident Corrective Action Project (CAP) Report for January 2000, CCN 00-004496, of 16 February 2000
- DOE-ID CO2 CAP Implementation Plan Report for January 2000 with Draft Forwarding Letter of February 2000
- DOE-ID INEEL CO2 CAP Implementation Plan, DOE/ID-10671, INEEL/EXT-98-01172, Revision 4 of September 1999
- DOE-ID INEEL CO2 CAP Implementation Plan, DOE/ID-10671, INEEL/EXT-98-01172, Draft Revision 5 of February 2000, as of 16 February 2000
- EH Oversight Legacy Issues (DNFSB 98-1) Corrective Action Implementation Plan
- BBWI CCN 00-005702 CO2 Accident Corrective Action Project Report for February 2000 of 10 March 2000
- BBWI CCN 00-005857 INEEL EH Oversight Legacy Issues Corrective Action Project Report for February 2000 of 10 March 2000
- Samples of packages of Corrective Actions, including briefings and reports, closure documentation, plans, references, reports, status reports, and supporting documentation (samples, series)

Interviews Conducted

- DOE-ID Assistant Manager (AM) for Environmental Management (EM)
- DOE-ID Deputy AM for EM
- DOE-ID AM for Technical Support
- DOE-ID Operational Safety Division Director
- DOE-ID AM for Technology Programs and Operations
- DOE-ID Director of the INEEL ISMS Project Office
- DOE-ID Test Reactor Area (TRA) and Specific Manufacturing Capability (SMC) Program Director
- BBWI INEEL Site Operations Director (SOD)
- DOE-ID Project Manager for Implementation of DNFSB 98-1 for INEEL EH Legacy Issues
- DOE-ID Assistant Project Manager for Implementation of DNFSB 98-1 for EH Legacy Issues at the INEEL
- DOE-ID Environmental Programs and Settlement Agreement Division Director

- DOE-ID Performance Assurance Division Director
- DOE-ID Issues Management and Lessons Learned Program Manager
- DOE-ID Issues Management Project Manager
- General Manager, ESH&QA
- Deputy Manager, QA
- Program Manager, CAPO

Observations

- DOE-ID and BBWI ISMS Status Presentations (series)
- Demonstration of the INEEL Lessons Learned Net Access
- Senior Operational Review Board (SORB) Meeting
- Site Area Director (SAD) Weekly Meeting

Discussion of Results

The implementing documents that are in place at INEEL within DOE-ID and within BBWI are based on the Corrective Action Project Management Approach for the corrective actions of the Test Reactor Area (TRA) CO₂ Accident. With the identification of the requirements to develop a formal corrective action plan for those previously identified EH issues, BBWI integrated all similar items within the process being utilized for the CO₂ accident. The remaining issues were placed in an identical process called the EH Oversight Legacy Issues Corrective Action Implementation Plan.

The Legacy Issues process also utilized the project management approach. The initial issue of this plan was in June 1999; Revision 1 was issued in September 1999, and Revision 2 was issued in March 2000. The sources of these Legacy Issues included the EH 1995 ES&H Oversight Assessment, the EH 1998 Emergency Response Assessment, the Radioactive Waste Management Complex (RWMC) Fall Accident Corrective Actions, the TRA Electrical Shock Corrective Actions, and the TRA CO₂ Accident Corrective Actions.

These issues were integrated into their approach in June 1999 and managed by a Joint DOE-ID/M&O Contractor Team under the guidance of the Joint DOE-ID/M&O Contractor Corrective Action Steering Board (CASB). Senior DOE-ID and Contractor Management personnel, who included management, operations, and subject matter experts, led the CASB.

This Team managed the corrective action approach for both identical projects that included tracking, closure, validation processes, as well as issuing status reports and identifying hard to solve issues or lagging corrective actions to the BBWI SORB and to the CASB. These issues could be safety, technical, managerial, prioritization of resources or inadequate corrective actions. The Lessons Learned from the corrective action programs are being disseminated through the ISMS developed program.

As of 29 February 2000, the Team reported that all corrective actions were closed with the exception of nine contractor and three DOE-ID CO₂ corrective actions that are to be completed in

conjunction with the final implementation of the ISMS and the corrective actions from the ISMS Verifications Phase II (ISMSV-II). There is also one additional DOE-ID corrective action still in progress to address the EH-95-6 issue to continue the improvement of Federal Employee training.

The next actions are to complete the validation and verification processes. Validation is their process to provide assurance of institutionalization of the corrective actions to minimize the possibility of reoccurrence of the issue. These validations are currently scheduled for completion by the end of June 2000, with the exception of the EH-95-6 issue, which is scheduled to be completed by the end of December 2000.

The review of a sample of documentation and the interviews with DOE-ID contractor personnel indicated that this process is formal and thorough. It requires independent reviews by BBWI and DOE-ID. The process has demonstrated that it is a useful and adequate process. DOE-ID and M&O contractor personnel have established a sound rapport, the address problems through direct face-to-face meetings and they are working to improve their processes. DOE-ID has demonstrated that they are ensuring high standards in the closure and validation processes. During the very brief period of this ISMSV the status of legacy issues was discussed during the SORB Meeting of 20 March.

Overall, it appears that the Joint DOE-ID/M&O Contractor process is adequate. It provides sufficient rigor and discipline to address the identified issues, and the correction process is on schedule for completion.

However, letters of direction and oral agreements established this process. DOE-ID and BBWI do not have directives, or procedures in place to address the process to be utilized for future EH issues that are identified or are directed to be included in the CATS program. (EH 1-1) Both organizations are considering formalizing a process that will be institutionalized either within their documentation and processes. Additionally, DOE-EH needs to identify the type of issues and who is responsible for inputting new issues into the existing systems for continuing operations. (EH 1-2)

Conclusion The Objective has been met.

Issue(s)

- DOE-ID and BBWI do not have directives, or procedures in place to address the process to be utilized for future EH issues that are identified or are directed to be included in the CATS program. (EH 1-1)
- DOE-EH needs to identify the type of issues and who is responsible for inputting new issues into the existing systems for continuing operations. (EH 1-2)

Strength(s)

- None.

Inspector _____	Team Leader _____
Robert Baeder	Roy Schepens

Sub-Team: SMC	FUNCTIONAL AREA: SHAZ DATE: March 23, 2000
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HAZARD IDENTIFICATION AND STANDARD SELECTION (HAZ)

OBJECTIVE: HAZ.1 The full spectrum of hazards associated with the Scope of Work is identified, analyzed, and categorized. Those individuals responsible for the analysis of the environmental, health and safety, and worker protection hazards are integrated with personnel assigned to analyze the processes. An integrated process has been established and is utilized to develop controls that mitigate the identified hazards present within a facility or activity. The set of controls are used to ensure adequate protection of the public, worker, and the environment and are established as agreed upon by DOE. These mechanisms demonstrate integration, which merge together at the workplace. (CE II-2, CE II-3)

CRITERIA:

1. Procedures and/or mechanisms are in place and utilized by personnel to ensure hazards associated with the work throughout the facility have been identified and analyzed. The resulting documentation is defined, complete, and meets DOE expectations. The execution of these mechanisms ensure personnel responsible for the analysis of environmental, health and safety concerns are integrated with those assigned to analyze the hazards for the facility or activity. The use of these mechanisms ensure direction and approval from line management and integration of the requirements.
2. Procedures and/or mechanisms are in place and utilized by personnel that describe the interfaces, roles and responsibilities of those personnel who identify and analyze the hazards of the scope of work. Personnel assigned to accomplish those roles are competent to execute those responsibilities.
3. Procedures and/or mechanisms are in place to develop, review, approve and maintain current all elements of the facility Authorization Basis Documentation with an integrated workforce.
4. Procedures and/or mechanisms that identify and implement appropriate controls for hazards mitigation within the facility or activity are developed and utilized by workers and approved by line managers. These procedures/mechanisms reflect the set of safety requirements agreed to by DOE.
5. Standards and requirements are appropriately tailored to the hazards.
6. Procedures and/or mechanisms are in place to effectively and accurately implement all aspects of the Authorization Basis.

APPROACH:

Record Review: Review the documents that govern the conduct, review, and approval of facility hazard analysis such as: Technical Safety Requirements MCP-2450 “Technical Safety Requirements”, Fire Hazards Analysis (FHA) MCP-579 “Fire Hazards Analysis”, Safety Analysis PDD-22 “Safety Analysis” and PRD-164 “Safety Analysis for Non-Nuclear, Radiological, and Other Industrial Facilities”, and MCP-3680 “Environmental Aspect Evaluation and Maintenance” (EAE) to verify that these documents conform to the hazard analysis requirements.

Review a sample of hazard control documents to verify safety controls are provided for the hazards identified and that the control strategy encompasses a hierarchy of 1) hazard elimination, 2) engineering controls, 3) administrative controls, and 4) personnel protective equipment. Typical documents include, Safety Analysis Reports (SARs), Technical Safety Requirements (TSRs), Health and Safety Plans (HASPs), Auditable Safety Analysis (ASA), Fire Hazards Analysis (FHA), Criticality Safety Evaluation (CSE), etc.

Review procedures and documentation such as that pertaining to field verifications for activities/processes such as: STD-101 “Integrated Work Control Process,” Radiological Work Permits (MCP-7 “Radiological Work Permit”), operations procedures (such as MCP-3480 “Environmental Instructions for Facilities, Processes, Materials, and Equipment), Hazards Identification and Control documents (MCP-3562 “Hazards Identification and Control of Operational Activities” or MCP-3571 “Independent Hazard Review”) to ensure accurate and effective implementation of Authorization Basis documentation requirements.

Where appropriate, review the process used to resolve Unreviewed Safety Questions (USQs) to ensure new tasks are being evaluated against the approved authorization basis as required by MCP-123, “Unreviewed Safety Questions.” Review completed USQ or in progress USQ implementation documentation.

The primary focus of this section of the review (HAZ) is the identification of hazards and development, review, and approval of Authorization Basis documentation at the facility level. Hazard identification and controls for individual work items or activities will be evaluated using the Operations (OP) CRAD.

Interviews: Interview personnel responsible for the identification and analysis of work hazards including personnel responsible for ALARA review requirements. For example, this should include personnel responsible for USQ determination, procedure technical reviews, etc. Interview personnel responsible for developing and implementing hazard controls and/or Authorization Basis Documentation at the facility level. This should include personnel such as those responsible for SAR/TSR, FHA, CSE, and EAE preparations and implementation. Observations: As possible, observe the actual preparation and field implementation of the analysis of hazards. In nuclear facilities, this should include an Unreviewed Safety Question Determination (USQD), preparation of a JHA, etc.

As possible, observe the actual processes development, review, approval, and implementation of SAR/TSR, and other Authorization Basis Documents as available. Where appropriate, observe that new tasks are being evaluated to determine if the tasks fall within the safety envelope described in the approved authorization basis as required by MCP-123, "Unreviewed Safety Questions."

Record Review

- SMC Management Assessment And Walkdown, January 31, 2000
- Quarterly RADCON Surveillance For October, Nov., Dec. of 1999, February 28, 2000
- 1999 Respiratory Protection Program Self Assessment, February 14, 2000
- Independent Assessment Of The Chemical Management System At The INEEL, February 1999
- Environmental Affairs Compliance Field Support Technical Assistance Walkthroughs
- SMC Production SAR Request Approval (OSB), February 28, 2000
- Second Meeting - SMC Production SAR Request Approval (OSB), March 9, 2000
- LL2000-30 Safety Hazards Associated With The Failure Of Safety Barriers Under The Control Of Microprocessor Based Computers, February 17, 2000
- LL1999-417 SAR Surveillance Program Deficiencies, October 25, 1999
- Operating Experience Weekly Summary, Exothermic Reaction In Drum At Idaho, 96-09
- Occurrence Report ID-LITC-SMC-1998-02 "Failure To Isolate Steam Line Prior To Demolition"
- Occurrence Report ID-LITC-SMC-1998-03 "Loss Of Control Of Radioactive Material Due To Failure To Comply With Procedures"
- Occurrence Report ID-LITC-SMC-1998-04 "Unexpected Lifting Of A 55 Gallon Drum Lid From Internal Pressurization"
- Occurrence Report ID-LITC-SMC-1999-02 "SAR Violation USQ"
- Training records:
 - Maintenance Planner
 - Safety Analyst
 - Independent Safety Review Committee Chair
 - Fire Safety Engineer
 - RADCON Engineer
 - Environmental Field Support
 - Industrial Safety
 - Nuclear Facility Manager
- JSA for TAN 679 Truck Receiving Area Warehouse Operations, SMC-MCP-3.1329
- JSA Machinery Inspection, SMC-TPR-8.0007
- JSA For Inspection Station Three, SMC-TPR-8.0004
- JSA For Final Product Shipment Surveys, SMC-TPR-7.2508

- JSA For TAN-629 HVAC Systems, SMC-TPR-6.5906
- JSA For Standby Sullair Air Compressor, SMC-TPR-6.5409
- JSA For Steam Generation System TAN-679, SMC-TPR-6.5106
- JSA For Salt Bath, SMC-TPR-3.1120
- SMC Employee Safety Team Quarterly Facility Inspection – JAM-004-00, February 3, 2000
- Hazard Assessments For Test Area North, INEL-94-0140, July 1995
- Radiological Work Permits:
 - Decon the Deburrer on Line 2 RWP 31000284
 - Sampling of TRU DU at SMC RWP 31000328
 - Perform Work on the High Pressure Water Jet RWP 31000345
- HWMA/RCRA Storage Permit For The Test Area North, EPA ID48900008952
- SMC SAR Implementation Matrix
- Work Order “Install New Disconnects On The Condensate Receiver At TAN-679
- SMC-MCP-1.6503 “SMC Supplemental Procedure To MCP-2974, Chapter II-Shift Routines And Operating Practices”
- SMC-MCP-1.6507 “SMC Supplemental Procedure To MCP-2978, Chapter VIII-Control Of Equipment And System Status”
- SMC-TPR-1.7201 “Stack Monitoring”
- SMC-TPR-1.3502 “Fire Protection System And Safety Cabinet Inspections”
- SMC Safety Analysis Report/Technical Safety Requirements
- Senior Supervisory Watch Qualification Training Documentation

Interviews Conducted

Interviews were conducted for the following disciplines:

- Maintenance Planner
- Safety Analyst
- Independent Safety Review Committee Chair
- Fire Safety Engineer
- Radiological Controls Engineer
- Environmental Field Support
- Industrial Safety
- Nuclear Facility Manager
- Production Supervisor
- TAN Warehouse Manager
- TAN-682/688 Supervisor
- TAN-688 Supervisor
- Production Technicians
- Lessons Learned Coordinator
- Maintenance Manager

Observations

The following observations/tours were conducted:

- Plan of the Day meeting
- Shift operations turnover
- Hazard Evaluation Group (HEG)
- Key Actions Meeting
- TAN-606 Paint and Carpenter Shop
- Procedure Table Top Review “Shear Cell Operation”
- TAN-682/688 Warehouse walk-through
- TAN-628 Warehouse walk-through
- Production Facility walk-through number 1
- ICARE Meeting
- Operational Safety Board – C Frame High Radiation Area Modification
- Production Facility walk-through number 2

Discussion of Results

The SMC has comprehensive procedures/mechanisms in place to ensure all environmental, safety, and health hazards have been identified and analyzed. These procedures/mechanisms effect a program that meets DOE’s safety expectations. Internal procedures provide for active participation of line management in all work control processes. An integrated flow-down of hazards related requirements to the worker level is evident. A high level of team participation in the analysis and mitigation of hazards is apparent and institutionalized.

The SMC is a Hazard Category 3 facility based in large part on the presence of Depleted Uranium, which is the Material-at-Risk (MAR). The facility safety authorization basis consists of the Safety Analysis Report (which includes the Technical Safety Requirements), Unreviewed Safety Question Evaluations, Interim Control letters, and Safety Evaluation Reports. Also included in the safety authorization basis is the HWMA/RCRA Storage Permit.

Facility level safety analysis programs exist for the SMC in accordance with company-level program requirements documents and procedures and DOE national and local requirements. Technical Safety Requirement limiting conditions for operations and administrative controls have been fully implemented by facility procedures. The HWMA/RCRA Storage Permit requirements have also been fully implemented by facility procedures and a facility specific RCRA permit inspection checklist.

National and local standards and requirements are identified and made contractual obligations through List A and B of the INEEL M & O contract. Company level programs such as Safety Analysis PDD-22 “Safety Analysis” and PRD-164 Safety Analysis for Non-Nuclear, Radiological, and Other Industrial Facilities” provide requirement flow down from List A and B to company level procedures such as Technical Safety Requirements MCP-2450 “Technical

Safety Requirements”, Fire Hazards Analysis (FHA) MCP-579 “Fire Hazards Analysis”,. Requirements are then implemented and appropriately tailored to the hazards by facility level procedures. This is verified by a requirements flow down matrix.

There are some weaknesses in the current version of the SMC SAR/TSR. These are: (1) The SMC SAR/TSR currently does not have limitations on the amount of Depleted Uranium (DU) allowed in the facility. DU limits are necessary to maintain the facilities current Hazard Category status. (2) The current SAR discusses the Hazard Categorization (HC) of the facility based on accident scenarios. This was an appropriate approach when the SMC SAR was originally written, but current DOE guidance has refined the methodology for determining the facility HC. Current guidance provides that the HC is based solely on Material-at-Risk (MAR). (3) The SMC SAR has no Safety Structures, Systems, and Components (SSCs). This determination was based on a subjective decision which was appropriate when the SAR was written but would be inappropriate under the guidance of ID Order 420.A. (SHAZ1-2)

SMC Safety Analysis personnel were fully aware of these weaknesses prior to this review. The facility management had previously determined a correct path forward. A change to the SAR/TSR has already been provided to the DOE ID approval authority, which adds a TSR limit on the amount of DU (and TRU constituents) allowed in the facility. This revision also changed the HC analysis so that the HC is based solely on MAR.

A revision to the SAR/TSR is planned for June of this year. This revision will use DOE-STD-1027 methodology to determine the offsite dose. The DOE-STD-1027 methodology will demonstrate that there are no dose consequences to the public from a MAR release. Thus demonstrating that the facility position of no Safety SSCs is correct and will also allow for a re-evaluation of the current TSRs.

These actions, as proposed by the Facility Safety Analysis Group, has received agreement from facility management, the local DOE program office, and the company level Safety Analysis Manager. The actions as agreed upon are appropriate and will correct the weaknesses in the current Safety Authorization Report.

STD-101 “Integrated Work Control Process,” and MCP-3562 “Hazards Identification and Control of Operational Activities”, ensure that worker and management involvement in the hazards analysis process occurs from the first identification of maintenance item (using STD-101) or from the start of the determination of need for an operating procedure.

For maintenance items, use of STD-101 ensures that a team of knowledgeable individuals which includes crafts, engineering, maintenance planning, and various environmental, health, and safety individuals perform a detailed hazards review. This hazards review includes a table top review of a comprehensive hazards checklist and a walk-down of the job site. The INEEL/SMC has institutionalized an Operational Safety Board (OSB), which reviews proposed new processes or engineering modifications. The OSB includes a full spectrum of management levels, crafts persons and subject matter experts. The OSB members should be counseled to emphasize that engineering controls are preferred over administrative solutions.

For operational procedures, use of MCP-3562 follows a similar structure to that used in STD-101. A table top job review is conducted by knowledgeable individuals (formally known as the Hazards Evaluation Group or HEG) which includes operations or production personnel, the operations or production supervisor, the Independent Review Committee Chairman, and various environmental, health, and safety Subject Matter Experts. (SHAZ1-4) In both instances mentioned above, the reviews are comprehensive and complete. The documentation of hazard analysis and mitigation is complete and meets DOE expectations

Procedures/mechanisms are in place and utilized by personnel that describe the roles and responsibilities of personnel who identify and analyze work process hazards. The personnel assigned to these roles have competencies commensurate with their responsibilities. A company level program requirements document requires that all personnel have expertise and proficiency in their assigned roles. The facility has ensured that all personnel involved in the analysis of hazards for the safety authorization basis, maintenance, production, or operations are appropriately trained in the analysis and mitigation of facility hazards related to their work activities or areas of expertise.

During the review it was noted that a lack of attention to detail may be an area of improvement. One of three work orders reviewed had numerous closeout signatures missing. One of several training manuals reviewed had a missing approval signature, and one fire extinguisher was found that had not had an annual check. (SHAZ1-1)

Facility execution of company and local procedures ensure that the personnel responsible for the analysis of environmental, safety, and health concerns are integrated with those assigned to analyze the hazards for SMC. The use of SMC facility procedures/mechanisms ensure direction and approval from line management and integration of requirements. The SMC has implemented the use of a Senior Supervisory Watch (SSW) as a roving management check of work processes. Occasionally, the SSW will be assigned to a specific job when additional management attention is required. The Senior Supervisory Watch program should include facility specific training in operations, production and the safety authorization basis. Additionally, the final certification for SSW should come from the Site Area Director. This will instill in the person pursuing certification the importance of the SSW position. (SHAZ1-3)

Conclusion: The objective has been met.

The SMC, as identified by this functional area review, fulfills the ISM Core Functions of Analyze-the-Hazards, Develop-And-Implement-Controls, and Perform-Work-Within-Controls. The facility ensures this occurs through the use of fully vertically and horizontally integrated teams, procedural compliance, and training of facility personnel.

Issue(s)

- There is an occasional lack of attention to detail in the completion of administrative duties. (SHAZ1-1)
- The Safety Analysis Report/Technical Safety Requirements document is not fully compliant with the methodology of ID N 420.A. (SHAZ1-2)
- The Senior Supervisory Watch program should include facility specific training in operations, production and the safety authorization basis. The SSW final certification authority should be the Site Area Director. (SHAZ1-3)

Strength(s)

- The Hazard Evaluation Group is an effective integrating mechanism for performing MCP-3562 reviews. (SHAZ1-4)

Inspector _____ Robert D. Boston	Team Leader _____ Roy Schepens
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Sub-Team: SMC	FUNCTIONAL AREA: SMG.1 DATE: March 23, 2000
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OBJECTIVE: SMG.1 An integrated process has been established and is utilized to identify and prioritize specific mission discrete tasks, mission process operations, modifications and work items. An integrated process has been established that ensures that mechanisms are in place to ensure continuous improvements are implemented through an assessment and feedback process, which functions at each level of work and at every stage in the work process. (CE II-1, CE II-5)

CRITERIA:

1. Procedures and/or mechanisms that require line management to identify and prioritize mission-related tasks and processes, modifications, and work items are in place and utilized by personnel.
2. Procedures and/or mechanisms are in place and utilized by personnel to ensure identified work (i.e., mission-related tasks and process, processes or facility modification, maintenance work, etc.) can be accomplished within the standards and requirements identified for the facility.
3. Procedures and/or mechanisms are in place and utilized by personnel to collect feedback information such as self-assessment, monitoring against performance objectives, occurrence reporting, and routine observation. Personnel assigned these roles are competent to execute these responsibilities.
4. Procedures and/or mechanisms are in place that develops feedback and improvement information opportunities at the site and facility levels as well as the individual maintenance or activity level. The information that is developed at the individual maintenance or activity level is utilized to provide feedback and improvement during future similar or related activities. Corrective actions include identifying the causes and working to prevent recurrence.
5. Procedures and/or mechanisms are in place and utilized by managers to identify improvement opportunities. Evaluation and analysis mechanisms should include processes for translating operational information into improvement processes and appropriate lessons learned.
6. Procedures and/or mechanisms are in place and utilized by managers to consider and resolve recommendations for improvement, including worker suggestions.
7. Procedures and/or mechanisms are in place, which include a process for oversight that ensures that regulatory compliance is maintained.

8. The contractor has mechanisms in place to direct, monitor, and verify the integrated implementation of ISMS as described in the ISMS Description. Implementation and integration expectations and mechanisms are evident throughout all institutional line and support organizational functions.

APPROACH:

Record Review: Review the facility or activity long-range planning documentation. This should include such items as summary schedules, plan of the week schedules, long-range schedules, modification schedules, etc.

Review the implementation of the mechanisms that line managers utilize to identify and prioritize mission-related tasks and processes, modifications, and work items. All direct funded work is controlled by procedures found in MCP-14, "Graded Approach to Defining Project Controls

Review the procedures and/or mechanisms that are utilized by the facility or activity to ensure that identified work is accomplished in accordance with established standards and requirements. Standards and requirements are rolled down to the facility level for implementation utilizing the process described in MCP-2447, "Requirements Management." Review facility processes for ensuring standards and requirements promulgated by the MCP-2447 process are reflected in activities at the facility.

Review the implementation of INEEL Configuration Management Program described in PLN-485, "Project Plan for the Configuration Management Project," PRD-115, "Configuration Management" and STD-107, "Configuration Management Program." Review MCP-2811, "Design and Engineering Change Control," MCP-3630, "Computer System Change Control," MCP-3572, "System Design Descriptions," MCP-3573, "Validating, Controlling, Using, and Revising Vendor Data" and MCP-2377, "Development, Assessment and Maintenance of Drawings," to establish the facility/activity level configuration management processes at the INEEL. Review training records of personnel in the configuration management subject area to determine that they meet competency standards.

Review the performance monitoring documentation for the feedback and continuous improvement process. This should include such documents as occurrence reports, deficiency reports, results of post-job reviews, safety observer reports, Issue Communication and Resolution Environment (ICARE) reports and reports of self-assessments and independent assessments. Ensure occurrence reports and ICARE entries are being completed in accordance with the requirements specified in MCP-190, "Event Investigation and Occurrence Reporting" and MCP-2723, "Reporting and Resolving Employee Safety Concerns & Suggestions," respectively. Process deficiencies should be addressed by following the process described in MCP-598, "Process Deficiency Resolution."

Lessons learned are managed and processed in accordance with the requirements described in MCP-192, "Lessons Learned Program." Management self-assessments are conducted in accordance with MCP-8, "Self-Assessment Process for Continuous Improvement." The process

of independent assessment of facilities and activities is described in MCP-552, "Conduct of Independent Oversight Assessments." The FY-00 schedule of independent oversight assessment activities can be found on the QA and Conduct of Operations internal homepage at URL: <http://home.inel.gov/qa&coo/ipa.html>. The Facility Excellence Program, described in PDD-1011, is a structured means of regularly assessing facilities for compliance in any of these areas.

Review procedures and documentation for work control to determine that adequate feedback and improvement mechanisms are in place at the individual maintenance or activity level. This should include documentation pertaining to the implementation of MCP-3003, "Performing Pre-Job Briefings and Post-Job Reviews," as the activity-level requirements document.

Review actual reports, results, schedules, and available data from these processes, as well as corporate processes and procedures, to evaluate the effectiveness of the implementation of these mechanisms. Specifically, evaluate the effectiveness of issue prioritization issue tracking identification and resolution of management system weaknesses associated with issues, and field follow-up, validation, and closure of corrective actions per MCP-598. For self-assessments, evaluate the implementation effectiveness of scheduled self assessment activities, including the analysis and entry of results into the appropriate tracking system as defined in MCP-8. Additionally review charters and output documentation from any corporate/site wide ISMS coordinating committees.

Interviews: Interview management personnel responsible for the identification and prioritization of work. This should include personnel such as those responsible for long-range planning documentation, schedule preparation, etc.

Interview personnel responsible for administering the feedback and continuous improvement process. This should include personnel such as those responsible for occurrence reporting, lessons learned preparation, preparation, ICARE entries, self-assessment, and oversight. Interview personnel responsible for capturing and utilizing feedback and improvement information during individual maintenance or other work activities. Interview line management to determine level of knowledge and involvement in the implementation of programs and activities such as the ICARE process.

Interview personnel and responsible managers in the configuration management subject area. Interview line managers to assess the establishment of clear roles and responsibilities and the understanding of the configuration management support provided to line managers. Interview chairman and key members of ISMS coordinating committees.

Observations: Observe work definition and planning activities to ensure that requirements specified by documents such as the Requirements Management process (MCP-2447) are considered and implemented at the activity level.

As possible, observe an Operational Safety Board (OSB) meeting. If possible, observe a program or project Change Control Board meeting. Observe a Pre-Job Briefing and a Post-Job Review. Observe any critiques, which may arise throughout the course of the observation process.

Observe events such as the development of an Engineering Change Form (ECF), Computer System Change Form (CSCF), or Document Action Request (DAR) for a technical document.

Observe any site level ISMS committee meetings.

Record Review

- Memorandum of Understanding between DOE-ID and the Army
- PDD-1004, INEEL Integrated safety Management System, Rev 4, 2/25/00
- PDD-1005, Site Operations
- STD-101, Integrated Work Control
- MCP-3562, Hazard Identification, Analysis and Control of Operational Activities, 7/31/99
- MCP-3480, Environmental Instructions for Facilities, Processes, Materials, and Equipment, 2/8/00
- MCP-4, Contractor Performance-Based Business Management Process
- MCP-8, Self-Assessment Process for Continuous Improvement, 8/31/99
- MCP-2447, Requirements Management
- MCP-553, Stop Work Authority, 3/15/99
- MCP-598, Process Deficiency Resolution
- MCP-190, Event Investigation and Occurrence Reporting
- MCP-192, Lessons Learned
- MCP-3003, Performing Pre-job and Post-Job Reviews
- PRD-5060, Occupational Safety Functions, Roles, Responsibilities, and Interfaces
- PDD-13, Training and Qualification Program
- MCP-27, Preparation and Administration of Individual Training Plans
- MCP-33, Training Qualification and Certification
- List of Current Year projects approved by DOE-ID
- Operations Safety Board (OSB) Charter for Specific Manufacturing Capability
- Meeting Minutes from last 2 OSB meetings
- List of Procedures not through MCP-3562 process
- List of primary owners
- SMC Trending Meeting Minutes, December 1999, January 2000, February 2000
- SMC Trending Report, 1st Quarter, 1999
- SMC-MCP-1.1001, SMC Roles and Responsibilities
- List of OJT Trainers and affiliate trainers
- Employee Position Descriptions and Individual Training Plans; SMC Director, Quality and Security Management Manager, Trainer, Configuration Management SME, Occupational Safety and Fire Protection TL, and a Manufacturing and Industrial Engineer documentation
- Requirements Roll Down Evaluations
- Examples (3) of accident/injury reviews performed in last 3 months
- ORPS Reports for SMC and Leased Laboratories for last 6 months
- Self-Assessment Plan and Status

- Self-Assessment Reports - 2 most recent reports completed prior to 3/1/00.
- ICARE Safety Concerns & Deficiency Reports
- Performance Indicators/Measures:
 - IOT Trending Report
 - Summary of Performance on Excellence Walk Downs
 - VPP Goals & Trending for SMC Unit
 - Trending Information from WASP Observations
- Feedback from Post-job briefs

Interviews Conducted

- SMC Director
- SMC Maintenance Manager
- SMC Engineering and Product Development Manager
- SMC Quality and Security Management Manager
- SMC Nuclear Facility Manager
- SMC Nuclear Facility Operations Supervisor
- SMC Facility Operations Supervisor
- SMC Manufacturing Supervisor
- SMC ES&H Manager
- SMC Self Assessment/CARB Coordinator
- SMC Lessons Learned Coordinator
- SMC Scheduler
- Production Foremen and Operators
- Maintenance Foremen and Crafts

Observations

- Daily Work Planning Meeting
- POD Meeting
- Shift Turnover Meeting
- Key Action Meeting
- Performance Monitor Meeting
- CARB Meeting
- OSB Meeting
- EST Meeting
- ICARE Management Meeting
- Work Procedure Training (SMC-TPR-3.1140)
- Self-Assessment of Classified Working Papers
- Pre-job Briefing (WO #80001251)
- Post-job Review (WO #80001318)
- Work Procedure Walkdown (2)

Discussion of Results

SMC has mechanisms used by line management to identify and prioritize work items. The final customer provides annual production requirements that are transmitted to SMC by DOE-ID through the Performance Evaluation and Measurement Plan and the Performance Based Incentives. A five-year plan for Capital Equipment, General Plant Projects and Environmental Projects has been established by SMC. The plan has been formally submitted to DOE-ID (by letter dated October 21, 1999) and approved. SMC develops midrange-planning documents, such as monthly production schedules and Passport Work Order planning lists, to address production and facility/maintenance needs. A four-day planning window integrates and prioritizes desired production facility/maintenance work and provides the means for managerial approval of work to occur each day. The Nuclear Facility Manager approves the POD allowing work to occur.

SMC ensures work is accomplished within the standard and requirements identified for the facility by defining scope, utilizing primary owner/systems engineers, SME reviews, and OSB reviews, and the requirements roll down matrix. The requirements roll down matrix is in place and has been approved by the DOE-ID SMC Facility Director. SMC provided objective evidence of the determinations regarding applicability of the requirements through the requirements roll down matrix. The SMC SAD Operations Safety Board (OSB) Charter (SMC-CTR-011) and minutes from three OSB meetings were reviewed. The Charter delineates the membership, training, quorum, and responsibilities of the Board. The membership has appropriate personnel including the SMC managerial staff, the Safety Analysis Report Coordinator, and the Independent Safety Review Coordinator as core members; adhoc membership is delineated with ESH&QA SMEs represented as well as planning and maintenance disciplines.

Procedures requiring MCP-3562, Hazard Identification, Analysis and Control of Operational Activities have been identified by SMC. The procedures on this list are in different stages of completion, including finished with the process, having the job safety analysis (JSA) completed but mitigations not incorporated into the procedure, and procedures still requiring a JSA to be completed. Just over 10% of the procedures are completely through the process, but the list is prioritized and all the higher risk procedures are completed.

SMC has procedures and mechanisms in place to collect feedback information. SMC Self-assessments and CARB programs are exceptionally well organized, comprehensive, and rigorously managed. (SMG1-3) The SMC FY-2000 Annual Integrated Assessment Plan, Revision 1, dated February 29, 2000 was reviewed. The SMC Director approved this plan. The plan specifies assessments to be performed by SMC (self-assessments), internal BBWI organizations (internal assessments), and organizations external to BBWI. Required and targeted assessments are delineated. The plan provides a list of Areas of Inquiry (topics) and a schedule including ones relating to ISMS. Many internal assessments specified in the schedule have been canceled due to a lack of resources, changing priorities, and combining the scope with other assessments. All changes to the schedule are approved by the SMC Director. The self-assessments have a better performance record with the majority of assessments meeting the schedule. Many of the completed assessments have an "open" status specified on the schedule.

The open status is used by SMC internally to ensure that all documentation from correction and closure activities are maintained with the originating assessment. SMC has an active Senior Supervisory Watch program that requires the managers to observe work.

All deficiencies identified during assessments are entered into the ICARE tracking database. The SMC Self-Assessment Coordinator demonstrated much diligence and ownership for his duties, and, along with the SMC Director, communicated the importance of the program to ISMS implementation. Investigations of Accidents/Incidents are formalized, through, and result in corrective actions to prevent reoccurrence. The corrective actions are entered into the ICARE tracking system.

SMC has a Root Cause Committee and a Corrective Actions Review Board (CARB) that ensures root causes are identified and appropriate corrective actions. The CARB is comprised of managers from each department. The CARB reviews corrective action plans and causes for all ICARE Deficiency Reports and Safety Concerns thereby including all Occurrence Reports, self-assessments, audits, and employee concerns. This provides a consistent approach toward the correction of deficiencies at SMC and helps ensure the root causes are addressed to prevent reoccurrence.

In summary, the team determined that the SMC Issues Management System has a manageable number of issues and no corrective actions were found to be overdue. External assessments, self assessments, safety concerns, lessons learned, and deficiency reports are evaluated and corrective actions tracked through this process. This review indicated that all Managers were working to close their open items and reduce the backlog of issues. The Issues Management system at SMC was determined to be effectively implemented. (SMG1-5)

SMC utilizes a Trending Subcommittee as one method to identify improvement opportunities. SMC Trending Subcommittee Meeting Minutes for December 1999, January 2000, and February 2000 were reviewed. The subcommittee is comprised of a cross-section of SMC employees. The minutes from the December and January meetings were dated March 6, 2000. The February meeting minutes were dated February 21, 2000. It appears that SMC decided that documentation of these meetings should be performed and has issued the earlier meeting minutes after the fact. Documenting the results of the meetings provides a common understanding of the meeting and a method for communicating the results to SMC management. In the future, the meetings should include discussion and conclusions of the actions taken by SMC from the recommendations of the Trending Subcommittee.

Review of the lessons learned determined that the Corporate Office has developed an extensive database of lessons learned from a wide source (e.g. DOE complex, NRC, etc.). Work planners developing a work package are required to search the database for applicability and incorporate as appropriate. This process was verified in the field during the observation of several jobs.

The Corporate Lessons Learned Coordinator also sends out urgent lessons learned to SAD's for review and determination of applicability. The review of this process determined that the SMC SAD has received urgent lessons learned notifications, entered them into the DR system for determination of applicability action as appropriated and tracked them to closure via the Issue

Management System. There is not a formal feedback mechanism for urgent lessons learned notifications to the Corporate Lessons Learned Coordinator regarding the outcome and results of the facility review. (SMG1-2)

Review of the facility lessons learned committee determined that a canvas of the Corporate database was being performed on a regular basis for determination of applicability and that lessons learned were being disseminated via several mechanisms, plan of day meeting, formal training, safety meetings, etc. Documentation was provided and reviewed to verify as well as observation of this activity was noted at the plan-of-the-day meeting.

The Facility lessons learned coordinator position is not proceduralized nor effectively integrated with the corporate lessons learned coordinator. (SMG1-1)

In addition, observations of management meetings such as SAD weekly meeting, SORB and Executive Council determined that important lessons learned were discussed and action assigned to disseminate.

Post-job reviews are also used to improve workpackages. The SMC Maintenance Manager has established a post-job review database to ensure the comments and other input resulting from the reviews are maintained. The comments are sent to the workpackage planner for incorporation. However, there is not a mechanism that ensures the input has been incorporated into the workpackage and resolves the worker's issues. The Maintenance Manager stated that he realized that the process was not complete and he would be taking steps to correct it.

Recommendations for improvement are brought to SMC management attention through ICARE Safety Concerns, Worker Applied Safety Program (WASP) observations, and worker input in job planning and post-job reviews. ICARE Safety Concerns are reviewed, assigned to a manager, and discussed with the submitter in a timely manner. This alleviated a past employee complaint that their input was not considered to be important. Currently, WASP is not a very active program at SMC. The data provided on the WASP program indicates that it is not well integrated into SMC. There were no WASP checklists performed during December 1999 or February 2000, and only three performed in January 2000. SMC management and the SMC Employee Safety Team (EST) have recognized this and are taking steps to encourage employee participation. The EST has set a numerical goal for the number of WASP observations to be completed. The observation recommendations are considered by the WASP Steering Committee.

Regulatory compliance is maintained through the BBWI Environmental Checklist process that ensures all environmental aspects are considered and the applicable regulations are applied. The requirements flowdown process has been implemented by SMC. Regulatory topics are included in the SMC self-assessment program and are performed by Subject Matter Experts. Assessments are performed by organizations outside SMC including the Facility Excellence Program assessments that confirm SMC maintains regulatory compliance. Deficiencies are entered into the ICARE database that includes a Price Anderson Act screening to identify noncompliances.

Conclusion

This objective has been met. SMC has integrated procedures and mechanisms integrated to direct, monitor, and verify the implementation of ISMS. Personnel at all levels of the organization involved in work planning and prioritization, procedure development and feedback, and corrective actions activities are engaged in the processes, concerned with respect to achieving safety and production, and striving for improvement. (SMG1-4)

Issue(s)

- Facility Lessons Learned Coordinator Position is not proceduralized nor effectively integrated with Corporate Lessons Learned Coordinator. (SMG1-1)
- No formal feedback mechanism exists for urgent Lessons Learned Coordinator notifications. (SMG1-2)

Strength(s)

- SMC Self-assessments and CARB programs are exceptionally well organized, comprehensive, and rigorously managed. (SMG1-3)
- Personnel at all levels of the organization involved in work planning and prioritization, procedure development and feedback, and corrective actions activities are engaged in the processes, concerned with respect to achieving safety and production, and striving for improvement. (SMG1-4)
- Issues Management System at SMC is effectively implemented. (SMG1-5)

Inspector _____	Team Leader _____
Richard Kauffman	Roy Schepens

Sub-Team: SMC	FUNCTIONAL AREA: SMG.2 DATE: March 23, 2000
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OBJECTIVE: SMG.2 Clear and unambiguous roles and responsibilities are defined and maintained at all levels within the facility or activity. Managers at all levels demonstrate a commitment to ISMS through policies, procedures, and their participation in the process. Facility or activity line managers are responsible and accountable for safety. Facility or activity personnel are competent commensurate with their responsibility for safety. (CE II-6)

CRITERIA:

1. Procedures and/or mechanisms are in place and utilized by personnel that define the roles and responsibilities for the identification and prioritization of mission-related tasks and processes, facility or process modification, and other related work items.
2. Procedures and/or mechanisms are in place that define clear roles and responsibilities within the facility or activity to ensure that safety is maintained at all levels.
3. Facility or activity procedures specify that line management is responsible for safety.
4. Procedures and/or mechanisms are in place and utilized to ensure that personnel who supervise work have competence commensurate with their responsibilities.
5. Procedures and/or mechanisms are in place and utilized to ensure that personnel performing work are competent to safely perform their work assignments.
6. The contractor is using a process to establish, document and implement safety performance objectives, performance measures, and commitments in response to DOE program and budget execution guidance.

APPROACH:

Record Review: Review contractor organization charts and documents describing the contractor matrix management concept. Review organizational documentation such as PDD-1015 "Research and Development Operations," PRD-5060, "Occupational Safety Functions, Roles, Responsibilities, and Interfaces," MCP-3652, "Roles and Responsibilities of Idaho Falls Facilities Tenants" and other similar documents for SMC to determine the personnel positions with responsibility associated with this objective. Ensure roles and responsibilities for personnel responsible for safety are clearly defined and understood and properly executed. This review could include position descriptions, Form-325.01 "Employee Position Description" and other applicable MCPs that describe roles and responsibilities related to ensuring safety are maintained. The review should consider personnel in line management and staff positions and should evaluate whether line managers are responsible for safety.

Review the procedures established such as PDD-13 “Training and Qualification Program,” MCP-27 “Preparation and Administration of Individual Training Plans,” and MCP-33 “Training Qualification and Certification” to ensure that managers and workers are competent to safely perform work. Review the personnel records which should include the “Training and Implementation Matrix” (TIM), “Individual Training Plans” and “Employee Training History,” to identify the individual qualifications that meet the elements of the position descriptions. Review the applicable records of qualification and certification. Review any training or qualification material, including training and qualification manuals such as Manual 12 and the associated processes that support gaining or verifying competence to fill the positions.

Review the process established to establish, document and implement safety performance objectives that support DOE program and budget execution guidance.

Interviews: Interview selected personnel at all levels of facility or activity management who are identified by the record review above. Verify their understanding and commitment to ensuring that safety is maintained for all work at the facility or activity. Interview a selected number of supervisors and workers to determine their understanding of competency requirements and their commitment to performing work safely. Interview contractor senior managers to determine their knowledge of the ISMS process and their commitment and participation in the process. Interview contractor line managers who are responsible for the establishment and implementation of the safety performance measures and safety objectives.

Observations: As possible, observe training being delivered for key programs such as hazards identification and analysis. Observe scheduled activities that demonstrate that clear roles and responsibilities are established and understood, that line managers are actively involved with decisions affecting safety, and that managers and workers are competent to perform their duties.

As possible, observe activities such as weekly planning meetings, plans of the day, event critiques, safety training, OSB meetings, Pre-job briefs, Site Operations Council (SOC) meetings, Corrective Action Review Boards (CARBS) and safety meetings that may provide good examples of the safety training and decision making process. Activities such as facility/process operations, testing, and maintenance also provide opportunities to observe personnel in the execution of roles and responsibilities, their understanding of procedures, awareness of hazards and management commitment to safety.

Record Review

- Memorandum of Understanding between DOE-ID and the Army
- PDD-1004, INEEL Integrated safety Management System, Rev 4, 2/25/00
- PDD-1005, Site Operations
- STD-101, Integrated Work Control
- MCP-3562, Hazard Identification, Analysis and Control of Operational Activities, 7/31/99
- MCP-3480, Environmental Instructions for Facilities, Processes, Materials, and Equipment, 2/8/00

- MCP-4, Contractor Performance-Based Business Management Process
- MCP-8, Self-Assessment Process for Continuous Improvement, 8/31/99
- MCP-2447, Requirements Management
- PRD-5060, Occupational Safety Functions, Roles, Responsibilities, and Interfaces
- PDD-13, Training and Qualification Program
- MCP-27, Preparation and Administration of Individual Training Plans
- MCP-33, Training Qualification and Certification
- List of primary owners
- SMC Trending Meeting Minutes, December 1999, January 2000, February 2000
- SMC Trending Report, 1st Quarter, 1999
- SMC-MCP-1.1001, SMC Roles and Responsibilities
- SMC-MCP-1.3111, SMC Qualified Watchstander List and Proficiency Requirements
- List of OJT Trainers and affiliate trainers
- Employee Position Descriptions and Individual Training Plans; SMC Director, Quality and Security Management Manager, Trainer, Configuration Management SME, Occupational Safety and Fire Protection TL, and a Manufacturing and Industrial Engineer documentation

Interviews Conducted

- SMC Director
- SMC Maintenance Manager
- SMC Engineering and Product Development Manager
- SMC Quality and Security Management Manager
- SMC Nuclear Facility Manager
- SMC Nuclear Facility Operations Supervisor
- SMC Facility Operations Supervisor
- SMC ES&H Manager
- SMC Self Assessment/CARB Coordinator
- Production Foremen and Operators
- Maintenance Foremen and Crafts
- BBWI Training Manager

Observations

- Daily Work Planning Meeting
- POD Meeting
- Shift Turnover Meeting
- CARB Meeting
- OSB Meeting
- EST Meeting
- Work Procedure Training (SMC-TPR-3.1140)
- Self Assessment
- Pre-job Briefing (WO #80001251)

- Post-job Review (WO #80001318)
- Work Procedure Walkdown (2)

Discussion of Results

Roles and responsibilities for identification and prioritization of work are clearly defined at SMC. SMC Management Control Procedure (SMC-MCP-1.1001) specifies the roles of managers and supervisors for identifying and prioritizing work. SMC has defined roles and responsibilities for all employees through position descriptions. Each position description contains the following statement, “Must be familiar with, and comply with, all relevant health and safety requirements.” This statement does not address the environmental component of ISMS. Position descriptions do not make a positive statement regarding being familiar with, and complying with, environmental requirements. (SMG2-1) BBWI company policies address responsibilities to comply with environmental requirements. However, adding environmental responsibilities to the position description would strengthen that expectation. SMC-MCP-1.1001 specifies roles and responsibilities regarding safety for SMC managers, supervisors, and key personnel. Work documents describe worker and foreman roles and responsibilities regarding safety.

A system of position descriptions to defined roles and responsibilities and an analysis of education, experience, training, and qualifications was evident at SMC. Samplings of personnel at all levels, from the SMC Director to the Crafts, were interviewed regarding this topic. All interviewed personnel demonstrated a high level of knowledge about their qualifications and limitations as well as knowledge of the system that ensured they met CCR. Files documenting the results of CCR reviews are in place for “key employees” and SMC plans to extend that to cover all their employees. BBWI has developed a card system documenting qualifications in an easily carried format that provides immediate information for the employee and work supervisor.

SMC has recently developed a procedure for maintaining the Qualified Watchstander List and associated proficiency requirements (SMC-MCP-1.3111). This procedure defines the requirements to maintain Watchstander proficiencies and to regain a qualification in this regard if it is lost. The procedure also provides instruction for the manner in which the qualification to stand watch is documented and used to assign work. This procedure represents a recent ISMS system improvement in ensuring workers can safely perform their assignments.

The CCR files for individuals were sampled. The individuals reviewed were found to have competencies commensurate with their responsibilities. However the documentation has deficiencies as stated below:

- The position description for the Configuration Management SME does not require any training regarding USQs or the SMC Facility Safety Basis. The individual currently performing those duties does have the training completed delineated on his training record. The competencies necessary to perform a function should be clearly specified.
- The position description for the Occupational Safety and Fire Protection Technical Lead requires a Industrial Safety, Occupational Safety, or relevant safety degree. The file for this individual specifies he has a Bachelor of Science degree, but does not specify the discipline for which it was obtained.

- Some of the files for SMC personnel include a "Verification of Competence Commensurate with Responsibility" form signed by their supervisor. According to the BBWI Training Manager this verification form was intended to be used as an interim measure to document CCRs for personnel that did not meet the training requirements for their position. The verification form does not specify what the deficiency is, why the CCRs are met with this deficiency, and what is required to be performed to eliminate the deficiency. The use of the verification form is not documented in any procedure or guidance. The lack of formality has resulted in an inconsistent application of the form. The BBWI Training Manager stated that some supervisors were utilizing the verification form to demonstrate that they had reviewed the employee's information and the CCRs had been met. Verification by a supervisor or manager that they have examined their employees for meeting CCR could be a notable practice. However, the inconsistent manner in which it has been done and the use of a form developed for another purpose eliminates that potential.

Various mechanisms are used to gather data on safety performance such as Safety Concerns entered into the ICARE system, self-assessments, and Employee Safety Team walk-downs. The data is tracked and analyzed by the Self-Assessment Coordinator and the SMC Trending Committee and reviewed by SMC's CARB, EST, and Senior Management for action appropriate to their responsibilities. The trends are presented to the DOE-ID SMC Program personnel and include information to meet the program and budget execution guidance requirements.

Conclusion

The objective has been met.

Issue(s)

- Position descriptions do not make a positive statement regarding being familiar with, and complying with, environmental requirements. (SMG2-1)

Strength(s)

- None.

Inspector _____	Team Leader _____
Richard Kauffman	Roy Schepens

Sub-Team: SMC	FUNCTIONAL AREA: SOP DATE: March 23, 2000
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OBJECTIVE: OP.1 An integrated process has been established and is utilized to effectively plan, authorize and execute the identified work for the facility or activity. (CE II-4)

CRITERIA:

1. Procedures and/or mechanisms are in place and utilized to ensure that work planning is integrated at the individual maintenance or activity level, and work planning fully analyzes hazards and develops appropriate controls.
2. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to confirm that the facility or activity and the operational work force are in an adequate state of readiness prior to authorizing the performance of the work.
3. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to gain authorization to conduct operations.
4. Procedures and/or mechanisms are in place and utilized which ensure that safety requirements are integrated into work performance.
5. Procedures and/or mechanisms are in place and utilized which ensure those adequate performance measures and indicators, including safety performance measures are established for the work.
6. Workers actively participate in the work planning process.

APPROACH:

Record Review: As applicable, review documentation and/or mechanisms that govern the work control process for planning, authorizing, and conducting work such as STD-101 "Integrated Work Control Process," MCP-3562 "Hazard Identification, Analysis and Control for Operational Activities," PRD-5043 "Operational Safety Boards", PDD 1012 "Program Description Document for Environmental Management System" and MCP-3480 "Environmental Instructions for Facilities, Processes, Materials and Equipment." This review should assess the adequacy of the documents and the status of their implementation, to meet the requirements listed above and determine that the maintenance and work control process is effectively integrated into the facility/activity procedures. In particular, note the integration of hazard identification and controls, (i.e. chemical, electrical, radiological, waste streams, environmental) into the work planning process. Review documentation that describes roles and responsibilities for the work control process, worker involvement in all aspects of the activity, and the work authorization process. Controls for individual work items or activities such as Job Hazards Analysis (JHA),

Radiation Work Permits (RWP), Hazard Profile Screen Checklist (HPSC), Work Control Forms (WCF), Confined Space Entry Permit, and operating procedures should also be evaluated.

As applicable, review the ALARA process to ensure the basic concepts of ALARA as well as any ALARA Committee recommendations are incorporated into the work control documentation.

Review the integration of subcontractor work control into the facility work control process. Evaluate the review of subcontractor work control documentation, the approval of the documentation, work authorization, and the oversight of subcontractor work in the facility.

Review the performance measures and performance indicators using the “INEEL Performance Measures and Trending Report,” MCP-3521 “Trending Center,” self -assessments conducted in accordance with MCP-8 “Self-Assessment Process for Continuous Improvement,” or the Facility Excellence Program PDD-1011 “Facility Excellence Program.” Determine if these tools provide information that is truly a direct indicator of how safely the work is being performed.

Interviews: Interview personnel responsible for preparing, authorizing, performing, and measuring the performance of the work. This should include personnel such as those responsible for preparing and maintaining work control documents, hazard identification and control documents, the Plan of the Day (POD), equipment status files, pre-job briefings, and the conduct of facility or activity operations.

Interview personnel responsible for individual activity procedures and controls (e.g. JHAs, RWPs, HPSCs, WCFs, etc.) Verify adequate worker involvement at each step of the process.

Interview personnel responsible for the development and implementation of the self-assessment program including individuals who participate in self-assessments. For RWMC, interview those individuals responsible for development, maintenance, and approval of the Authorization Agreement. Interview members of the management team charged with adherence to the requirements listed within the Authorization Agreement.

Observations: Observe the actual authorization and performance of work activities. Observe a plan of the day or plan-of-the-week meeting. As possible, attend an Operational Safety Board (OSB) meeting or an Independent Hazard Review Group (IHRG) meeting with field verification that hazard controls specified by the hazards control documents are being implemented. As possible, Team members should observe the development of a maintenance work package as well as the field execution of a maintenance work package. Observation could include the pre-job brief, authorization by the managers to proceed, command and control of the work, review of safety requirements, etc.

As possible, observe work hazard identification activities (e.g. JHAs, RWPs, etc.) and the application of MCP-3562 during an operational procedure walk-down and review. Observe worker involvement in these processes.

Record Review

- STD-101 Integrated Work Control Process, Revision 3, dated 12/14/99
- MCP-3562 Hazard Identification Analysis and Control of Operational Activities, Revision 2, 03/17/00
- PRD-5043 Operational Safety Boards, Revision 0, dated 08/02/99
- PDD-1012 Environmental Management System, Revision 2, dated 08/26/99
- MCP-3480 Environmental Instructions for Facilities, Processes, Materials, and Equipment, Revision 1, dated 02/08/00
- MCP-8 Self-Assessment Process for Continuous Improvement, Revision 3, dated 08/31/99
- MCP-3521 Trending Center, Revision 0, dated 03/01/99
- PDD-1011 Facility Excellence Program, Revision 0, dated 03/15/99
- PDD-1005 Site Operations Manual, Revision 2, dated 03/17/00
- SMC-GDE-002 SMC Corrective Action Review Board Charter, Revision 2, dated 04/17/99
- Interagency Agreement Number DE-A107-89ID12865, Memorandum of Understanding Between the Department of Army (DA) and Department of Energy (DOE), Addendum 5, dated October 5, 1999
- Work Order 80001086 01 Repair Entry C-Frame
 1. Hazards Identification & Mitigation Checklist Work Control Form Number 1450
 2. Pre-Job Briefing Checklists
 3. Job Safety Analysis TAN-ES-001 Rev. 2, Diagnostic Activities, Calibration and Troubleshooting, dated 01/25/00
 4. Job Safety Analysis TAN-ES-002 Rev.2, Placing Electrical Equipment into an Electrically Safe Work Condition, dated 01/25/00
 5. SMC Radiation Work Permit Number 31000245 00, Repair Entry C-Frame in TAN 679
- Completed Work Order 80001135 01 Repair Entry C-Frame Problems With Source
 1. Hazards Identification & Mitigation Checklist Work Control Form Number 1519
 2. Pre-Job Briefing Checklists
 3. Job Safety Analysis TAN-ES-001 Rev. 2, Diagnostic Activities, Calibration and Troubleshooting, dated 01/25/00
 4. Job Safety Analysis TAN-ES-002 Rev.2, Placing Electrical Equipment into an Electrically Safe Work Condition, dated 01/25/00
 5. SMC Radiation Work Permit Number 31000241 05, Perform Work Inside the Mill Enclosure for the C-Frame
 6. C-Frame Repair Operational Safety Board Meeting Minutes – BDA-05-00, dated February 14, 2000
- Completed Work Order 80001001 Install New Disconnects to Pumps P-HA-218D & 218E TAN 679 Boiler Room
- ECF 12578.00 Rev 0, Rebuild TAN-629 US-AE-1 Transformer, dated 9/30/98
- FY-2000 Annual Integrated Assessment Plan/Schedule, Revision 1, dated February 16, 2000
- FY-2000 Scheduled Assessments Report, dated 03/15/00

- January ES&H Facility Inspection – MRG-01-00, dated January 31, 2000
- Timely Order NKD-0499, Lockout/Tagout Committee, dated June 8, 1999
- JSA for Chip Oxidation Station, SMC-TPR-3.1126, dated 3/15/00
- JSA for Tanks 151/160 Liquid Transfer TAN-681, SMC-TPR-6.5503, dated 1/8/00
- JSA for SMC-TPR-3.1107, dated 1/27/00
- JSA for SMC-T[PR]RP-3.1101, dated 1/17/00
- Interoffice Memorandum Line-6 Safety Mats – KEK-01-00, dated February 3, 2000
- SMC-TPR-3.1101, Revision 0, dated February 29, 2000
- SMC-TPR-3.1106 Line 2B Cure, Revision 0, DRAFT
- SMC-TPR-3.1107, Revision 0, dated March 16, 2000
- SMC-TPR-3.1140 Operating Instructions for Conveyors and Vacuum Transporters in TAN 679, Revision 0, DRAFT
- 1st Quarter Trending Report – Trend-01-99, dated May 21, 1999
- SMC Trending Meeting Minutes-LM-001-00, dated February 21, 2000
- SMC Trending Subcommittee Meeting Minutes – January 24, 2000, dated March 6, 2000
- SMC Building-629 & TSF Roundsheet for 3/14/00
- SMC Building-679 Roundsheets for 3/9/00 and 3/15/00

Interviews Conducted

- Nuclear Facility Manager
- Self Assessments Coordinator
- Maintenance Manager
- Manufacturing Supervisor
- Integrated Work Control Supervisor
- MCP-3562 JSA Process Chairman
- Lessons Learned Coordinator
- One Shift Supervisor
- One Utility Operator
- One Manufacturing Technician
- One Mechanical Craft Person

Observations

- Plan of the Day Maintenance Schedule Planning Meetings (Two)
- Plan of the Day Meetings (Two)
- Operations Shift Turnover (Two)
- Corrective Action Review Board Meeting
- Issue Communication and Resolution Environment (ICARE) Safety Committee Meeting
- Self Assessment Activity
- Key Actions Meeting
- Operations Safety Board Meeting
- Work Planning Activity
- Work Planning Walkdown Activity

- Pre-Job Briefing
- Post-Job Briefing
- Operations Procedure Validation
- Line Operations
- Phase II Operations

Discussion of Results

The access to numerous portions of production line equipment is provided with gates that are normally shut and locked, and which contain interlock devices that are designed to prevent the operation of rotating/ moving parts and equipment. Manufacturing Technicians frequently access these areas during normal production operations by unlocking the gates and removing the keys, and rely entirely on the interlock associated with the gates to prevent movement of parts and equipment. For most operations at the INEEL, similar hazards associated with rotating and moving equipment would be isolated by the use of the BBWI Lockout/Tagout program. While the gate interlock system may provide the same level of protection to workers as a separately installed Lockout/Tagout device, the gate interlocks are not included in a surveillance program to verify operability of the interlocks used for personnel protection. (SOP1-1)

During observation of one production line it was noted that the factory installed working surface of a particular production equipment had been moved out of the normal position and a smaller, locally developed and produced working surface, was installed in its place. The smaller working surface was installed several years ago, and the purpose was to allow the Manufacturing Technician better access for removal of scrap material. It was explained that the factory installed working surface contained an interlock that required the working surface to be in its normal, upright and flush position. It was also explained that the smaller working surface was designed to satisfy the interlock, allowing normal operation of the equipment. During observation of similar equipment it was noted that the factory installed working surface was moved out of the normal position and the equipment was operating even though a smaller working surface was not in place. It was learned that, in accordance with the approved operating procedure for the material being processed, the interlock was bypassed by a metal plate taped to the stationary working surface. (However, the procedure did not contain a step to remove the interlock bypass device prior to processing a different material.) Follow-up discussion with SMC Operations management and the system owner indicated that the manufacture and installation of the smaller working surface was performed following review and approval by operations, engineering, and safety personnel, but that no formal documentation was developed and retained to support that decision. It was also concluded that having the factory installed working surface removed while processing the particular material at the time the observation was made, was safe. However, processing a different type of material could expose the Manufacturing Technician to the hazard of being pinched between the stock material and the stationary working surface. (SOP1-2)

Procedures governing the planning and development of maintenance work control packages were reviewed, and personnel involved in the planning and execution of work were interviewed. Personnel involved in the process demonstrated competence in their knowledge of facility equipment, hazards associated with various maintenance tasks, and the requirements of STD-101 “Integrated Work Control Process”. Mechanisms are in place and utilized to ensure that work

planning is integrated at the individual maintenance or activity level, and work planning fully analyzes hazards and develops appropriate controls.

Procedures and mechanisms are in place and utilized which ensure that there is a process used to confirm that the facility or activity and the operational work force are in an adequate state of readiness prior to authorizing the performance of the work. This is accomplished by interaction of operations, maintenance, and safety organization personnel at a daily Plan of the Day (POD) meeting. Maintenance and production work scheduled for accomplishment the following day is presented at the POD meeting, and is formally approved by the Nuclear Facility Manager. As a final control, authorization to actually commence work is provided by the on-duty Shift Supervisor. This is an important part of the process in the event facility or equipment operating conditions change between the time, up to four days, from the POD meeting to the time work is scheduled to commence.

JSAs developed as part of the MCP-3562 Hazard Identification, Analysis and Control for Operational Activities, for similar processes, SMC-TPR-3.1101 and SMC-TPR-3.1107, were compared. A primary hazard associated with the process is identified on the JSA associated with SMC-TPR-3.1101, but not on the JSA associated with SMC-TPR-3.1107. (SOP1-3)

Procedures and mechanisms are in place and utilized which ensure that there is a process used to gain authorization to conduct operations. Authorization for conduct of production operations is controlled in the same manner as that described for maintenance activities in the preceding paragraph.

The basic procedures are in place and utilized which ensure that safety requirements are integrated into work performance. However, the integration of requirements identified during the separate phases of maintenance Work Order development were often not included in the final work document generated through the Computerized Maintenance Management System. As an example, Work Orders for similar electrical maintenance contain significantly different documentation concerning hazard evaluation and worker training requirements. (SOP1-3) Two JSAs associated with electrical work are included in Work Order documents involving electrical work, and are referenced in the work instructions. However, the intended work activities are not evaluated and compared against the wide range of precautions and requirements included in the JSAs. This practice requires the workers to identify specific hazards expected to be encountered during performance of the work rather than in the planning and review process. A specific example is illustrated by the comparison of Work Order 80001135, Repair Entry C-Frame Problems With Source, and Work Order 80001086, Repair Entry C-Frame since both tasks involved similar electrical troubleshooting activities. The following comments summarize that comparison:

- Hazards Identification & Mitigation Checklist (HPSC)
 1. One document concluded that the Planning Level was “Low” with a total score of 40, and the other concluded that the Planning Level was “Medium” based on a total score of 85.
 2. One document Work Activity Prescreen concluded that the work activity could impact the facility’s authorization basis documentation requirements or controls (but

- did not provide an explanation in the comment section) and the other document Work Activity Prescreen concluded that there would not be an impact.
3. One document Preliminary Hazards Profile identified Radiological and Mechanical Hazards only, and the other document identified Radiological, Mechanical and Electrical hazards.
 4. One document Training Requirements identified Radiological Worker I or II, and the other document identified High Energy Awareness Training (HEAT), INEEL Substation Access, Research and Electronic Worker Electrical Training, and Radiological Worker I or II.
- Walkdown Checklist for IWCP HIM Process
 1. One document identified Pinch point, sharp edges, and mechanical motion as a potential hazard, and the other document did not.
 - JSA TAN-ES-001 Rev.2, Diagnostic Activities, Calibration and Troubleshooting and JSA TAN-ES-002 Rev.2, Placing Electrical Equipment into an Electrically Safe Work Condition. The JSA was included in both Work Orders and lists required training as High Energy Awareness Training (HEAT), National Electric Code, Medic First Aid Basic and Refresher training. One Work Order document listed High Energy Awareness Training (HEAT) as being required and the other Work Order does not include any of the training requirements listed in the JSA.
 - Work Order 80001086 was a General Intent Work Order, and therefore did not contain detailed work instructions. However, Step 1 of the Work Instructions section of the Work Order reads as follows and is confusing, “Using proper diagnostic technique, discovery the problem with the entry C-Frame. The apparent problems are bad when reading on the last hole and the source not closing after taking a profile.”
 - Work Order 80001135 is not a General Intent Work Order, and contains very detailed work instructions that are required to be completed in sequential order.
 - Work Order 80001135 was issued and commenced on March 2, 2000, but was stopped prior to actually performing troubleshooting activities. Step 2 of the Work Order indicates that a Level II Lockout/Tagout was placed but was not accepted by the work group. No explanation was provided in the Work Order as to why the Lockout/Tagout process was not completed, or that work was stopped.
 - Work Order 80001135 involved work in a high contamination area and in the vicinity of a relatively powerful radioactive source. The Work Order contained detailed operating instructions, including photographs of the radioactive source to familiarize workers with the equipment prior to accessing that equipment. The Work Order also contained several “lessons learned” bulletins from other DOE sites and activities involving heat stress and radiation exposure problems that had been encountered during similar activities. (SOP1-4)

Mechanisms are in place and utilized which ensure those adequate performance measures and indicators, including safety performance measures are established for the work. The SMC Trending Committee meets on a monthly basis and issues a Quarterly SMC Trending Report. Items and issues trended include: Accident/Injury Reporting, ALARA, Occurrence Reporting, and Employee Safety Concerns/Health and Safety Inspections. During the interview process, some managers indicated they have also developed performance measures and indicators for their individual organizations.

Workers actively participated in the operations and work planning hazard identification process. In addition to management representatives and safety and health professionals, operations and production personnel were included in the hazard identification and mitigation process. Employees at all levels of responsibility, from craft workers and manufacturing technicians to facility supervision, expressed enthusiasm for being allowed to participate in the process. The result has been greater ownership in the production and maintenance activities as well as a broader understanding of hazard identification and mitigation at SMC. (SOP1-5) For maintenance work, a representative from each appropriate discipline assists the job planner in the hazard screening process when developing the Work Order, as well as participating in the job Walkdown process when validating the Work Order. A similar process is in place for upgrading operating procedures, where employee involvement is included in the hazard review and JSA development process as well as the procedure validation process.

Conclusion

The review criteria have been satisfactorily completed and the objective has been met.

Issues

- Interlocks associated with restricting/preventing personnel access to rotating equipment and other hazards during production operations are not routinely checked to ensure adequate personnel protection. (SOP1-1)
- Interlocks designed to prevent operation of production equipment when the factory installed working surface is not placed in the normal position have been bypassed without performing a formally documented review. (SOP1-2)
- Inconsistencies in hazard identification and mitigation exist between similar JSAs and Work Order documents. (SOP1-3)

Strengths

- A Work Order involving a “high risk” task included detailed instructions and photographs of normally inaccessible equipment to familiarize workers with the hazards and operation of that equipment. The Work Order also contained several “lessons learned” bulletins pertaining to heat stress and radiation exposure problems experienced while performing similar work at other DOE sites and activities. (SOP1-4)
- Employee involvement in the MCP-3562 process has created ownership in the operations procedure development and validation process, and has resulted in the identification and mitigation of hazards associated with operations processes. (SOP1-5)

Inspector _____ Robert C. Seal	Team Leader _____ Roy Schepens
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Sub-Team: IFF	FUNCTIONAL AREA: IHAZ DATE: March 23, 2000
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HAZARD IDENTIFICATION AND STANDARD SELECTION (HAZ)

OBJECTIVE: HAZ.1 The full spectrum of hazards associated with the Scope of Work is identified, analyzed, and categorized. Those individuals responsible for the analysis of the environmental, health and safety, and worker protection hazards are integrated with personnel assigned to analyze the processes. An integrated process has been established and is utilized to develop controls that mitigate the identified hazards present within a facility or activity. The set of controls are used to ensure adequate protection of the public, worker, and the environment and are established as agreed upon by DOE. These mechanisms demonstrate integration, which merge together at the workplace. (CE II-2, CE II-3)

CRITERIA:

1. Procedures and/or mechanisms are in place and utilized by personnel to ensure hazards associated with the work throughout the facility have been identified and analyzed. The resulting documentation is defined, complete, and meets DOE expectations. The execution of these mechanisms ensure personnel responsible for the analysis of environmental, health and safety concerns are integrated with those assigned to analyze the hazards for the facility or activity. The use of these mechanisms ensure direction and approval from line management and integration of the requirements.
2. Procedures and/or mechanisms are in place and utilized by personnel that describe the interfaces, roles and responsibilities of those personnel who identify and analyze the hazards of the scope of work. Personnel assigned to accomplish those roles are competent to execute those responsibilities.
3. Procedures and/or mechanisms are in place to develop, review, approve and maintain current all elements of the facility Authorization Basis Documentation with an integrated workforce.
4. Procedures and/or mechanisms that identify and implement appropriate controls for hazards mitigation within the facility or activity are developed and utilized by workers and approved by line managers. These procedures/mechanisms reflect the set of safety requirements agreed to by DOE.
5. Standards and requirements are appropriately tailored to the hazards.
6. Procedures and/or mechanisms are in place to effectively and accurately implement all aspects of the Authorization Basis.

APPROACH:

Record Review: Review the documents that govern the conduct, review, and approval of facility hazard analysis such as: Technical Safety Requirements MCP-2450 “Technical Safety Requirements”, Fire Hazards Analysis (FHA) MCP-579 “Fire Hazards Analysis”, Safety Analysis PDD-22 “Safety Analysis” and PRD-164 “Safety Analysis for Non-Nuclear, Radiological, and Other Industrial Facilities”, and MCP-3680 “Environmental Aspect Evaluation and Maintenance” (EAE) to verify that these documents conform to the hazard analysis requirements.

Review a sample of hazard control documents to verify safety controls are provided for the hazards identified and that the control strategy encompasses a hierarchy of 1) hazard elimination, 2) engineering controls, 3) administrative controls, and 4) personnel protective equipment. Typical documents include Safety Analysis Reports (SARs), Technical Safety Requirements (TSRs), Health and Safety Plans (HASPs), Auditable Safety Analysis (ASA), Fire Hazards Analysis (FHA), Criticality Safety Evaluation (CSE), etc.

Review procedures and documentation such as that pertaining to field verifications for activities/processes such as: STD-101 “Integrated Work Control Process,” Radiological Work Permits (MCP-7 “Radiological Work Permit”), operations procedures (such as MCP-3480 “Environmental Instructions for Facilities, Processes, Materials, and Equipment), Hazards Identification and Control documents (MCP-3562 “Hazards Identification and Control of Operational Activities” or MCP-3571 “Independent Hazard Review”) to ensure accurate and effective implementation of Authorization Basis documentation requirements.

Where appropriate, review the process used to resolve Unreviewed Safety Questions (USQs) to ensure new tasks are being evaluated against the approved authorization basis as required by MCP-123, “Unreviewed Safety Questions.” Review completed USQ or in progress USQ implementation documentation.

The primary focus of this section of the review (HAZ) is the identification of hazards and development, review, and approval of Authorization Basis documentation at the facility level. Hazard identification and controls for individual work items or activities will be evaluated using the Operations (OP) CRAD.

Interviews: Interview personnel responsible for the identification and analysis of work hazards including personnel responsible for ALARA review requirements. For example, this should include personnel responsible for USQ determination, procedure technical reviews, etc.

Interview personnel responsible for developing and implementing hazard controls and/or Authorization Basis Documentation at the facility level. This should include personnel such as those responsible for SAR/TSR, FHA, CSE, and EAE preparations and implementation.

Observations: As possible, observe the actual preparation and field implementation of the analysis of hazards. In nuclear facilities, this should include an Unreviewed Safety Question Determination (USQD), preparation of a JHA, etc.

As possible, observe the actual processes development, review, approval, and implementation of SAR/TSR, and other Authorization Basis Documents as available. Where appropriate, observe

that new tasks are being evaluated to determine if the tasks fall within the safety envelope described in the approved authorization basis as required by MCP-123, "Unreviewed Safety Questions."

Record Review

- IHR Checklist and Hazard Mitigation Plan for Molecular Imaging PicoSPM system, IRC IF-603 C-1
- PDD-1005, Program Description Document for Site Operations, Revision 2, 03/17/00
- MCP-3571, Independent Hazard Review, Rev. 2, 2/2/00
- MCP-3562, Hazard Identification, Analysis and Control of Operational Activities, Rev. 2, 03/17/00
- STD-101, Integrated Work Control Process, Rev. 3, 12/14/99
- Bechtel B&W Idaho Safety and Health Annual Program Evaluation
- WASP homepage
- Facility Hazards Lists for IF-614, IF-616, IF-613, IF-639, et. al.
- IRC/Leased Labs Safety Statistics from VPP Unit 7 homepage
- IRC/Leased Labs Safety Committee Meeting minutes
- MCP-3562, Role and Responsibilities of Idaho Falls Facilities Tenants, Revision 0, 09/09/99
- STD-1106, Standard for Industrial Safety Qualification, Revision 2, 02/17/00
- STD-1103, Standard for Industrial Hygiene Qualification, Revision 0, 09/28/99
- WASP Observation Checklists (Workplace Hazard Identification/Inspection Checklists)
- Varsity Garcia Safety Manual, December, 1999
- PRD-5001, Training and Indoctrination, Revision 1, 03/13/98
- PDD-1015, Research and Development Operations, Revision 1, 01/10/00
- Hazard Assessment for Eight INEEL Facilities in Idaho Falls, DOE-ID Headquarters North, DOE-ID Headquarters South, EROB, IRC, TSA, TSB, WCB, WCB Mechanical, NO REVISION, NO DATE
- Hazard Classification for North Boulevard Annex, No Revision, July 1997
- DOE-ID N 420.A1 Safety Basis Review and Approval Process
- Job Safety Analysis, Prototype Engineering Laboratory Shop Activities, Prototype Engineering Laboratories (PEL) (CFA 688, 686, IRC, HHL, and TRA 604), February, 2000
- Job Safety Analysis, WCB Print Shop & copy centers (TSB, IRC, TRA, INTEC, EROB 1st and 3rd floors, February 2000.)
- Job Safety Analysis, IF 616 Photo Lab, Micrography – Photo/Micrography, January, 2000
- Job Safety Analysis, All town and site locations – Installation, moves and changes to telephones for General Dynamics, February, 2000
- Job Safety Analysis, EROB Mail Center, Site Delivery Area - INEEL Mail System Operations, February, 2000
- Job Safety Analysis, EROB Mail Room – Operation of EROB Mail Room X-ray machine, February, 2000
- Job Safety Analysis, All Areas - Routine Work of Telecommunications Organization – Organization 2430, February, 2000
- MCP-2451, Safety Analysis for Other Than Nuclear Facilities, Rev. 1, 09/02/99
- Company Employee Safety Team (CEST) Charter and Goals

- IF 657 North Holmes Lab November, December, January & February Facility Excellence Walkdown reports
- December 1999 Safety Walkthrough of the National Spent Fuel Quality Assurance Work area report
- IFF Maintenance Backlog Summary

Interviews Conducted

- Leased Laboratory Managers
- Leased Laboratory Principle Investigator
- Leased Lab Custodians
- Leased Lab IHRG Chairman
- Leased Labs Safety Engineer
- Leased Lab Industrial Hygienist
- IF Safety Engineer
- IF Industrial Hygienist
- DOE-ID Laboratory Facility Representative
- DOE-ID Facility Manager

Observations

- IHRG review meeting
- Employee Safety Committee meeting
- WBC Print Shop
- Pre-job brief and work for AC Unit maintenance evolution
- WASP Training Session
- VPP Safety Meeting
- Maintenance POD, IFF
- IFF POW meetings
- Water heater repair by First Street Plumbing
- Ballast replacement in outside security lighting by Wheeler Electric
- Management Self Assessment

Discussion of Results

Mechanisms are in place and are utilized by personnel to ensure hazards associated with work in both the leased labs and Idaho Falls facilities are identified and analyzed. Three hazard identification and analysis procedures are used for work performed at IFF, including MCP 3571, *Independent Hazard Review*; MCP-3562, *Hazard Identification, Analysis and Control of Operational Activities*, and STD-101 *Integrated Work Control Process*. The methods used to identify hazards varies according to the type of work to be performed, as well as who is performing the work. Using MCP 3571, *Independent Hazard Review*, hazards associated with research and development activities are identified, analyzed and controlled through the use of a hazard identification checklist and a hazard mitigation plan. The proposed activity is processed through an Independent Hazard Review Group (IHRG) that uses a graded review approach

based on the judged risk level. Depending on the risk level, independent or group (synergistic) reviews are performed. Workplace walk throughs are performed when the group deems it necessary. The process authorizes work after a review and approval by lab management. A re-review process is included to ensure that the activity owner does not change the activity in such a way as to introduce unanalyzed hazards. The Group also considers the compatibility of a given activity with other proximate activities to ensure hazardous conditions will not develop. Procedures and expectations are in place to require a more structured and rigorous review of “complex research activities” by using HAZOP, Failure Events Mode Analysis (FEMA), Probabilistic Risk Assessment (PRA), Process Safety Management, and What If, etc. These methods have been used.

In general, the hazard identification, analysis and control process used for maintenance and operational activities is well defined and appropriately used. However, there is some concern that the depth of analysis provided by the Job Safety Analysis process, in some applications, is inadequate. Hazard identification, analysis and control for some operational and maintenance activities is performed by the use of an approved Job Safety Analysis (JSA). This, in conjunction with training and qualification of the worker for “operations related tasks, and maintenance related tasks,” as well as an operations authorization, allows work to be performed in facilities. In several instances, facilities were using a single JSA for all the work activities being performed in that facility. MCP-3562 and MCP-3540 give guidance for the expectations for hazard identification when using JSAs. Specifically, JSAs must identify “all” hazards associated with the operation to be performed. Because of the variety and complexity of work performed in IF facilities, a single JSA may not adequately cover “all” the hazards. Consequently, JSAs may not be completely effective in identifying workplace hazards due to their broad scope. (IHAZ1-1) It is not the intent to drive the analysis to an unmanageably detailed level, but sufficient depth should be employed to ensure worker protection.

Roles and responsibilities of the personnel who identify and analyze hazards for Idaho Falls facilities is found in MCP-3652, *Roles and Responsibilities of Idaho Falls Facilities Tenants*. Additionally, qualification programs for subject matter experts (SMEs) have been established using company standards (e.g. STD-1105 Fire Protection Qualification, STD-1106, Standard for Industrial Safety Qualification and STD-1103, Standard for Industrial Hygiene Qualification.) Presently, not all of the IFF SMEs have completed their respective qualification programs, but completion deadlines have been established. Interviews with S&H professionals found that they are regularly involved in a variety of hazard identification efforts including IHRG participation, facility excellence walkdowns, workplace S&H inspections, maintenance work package review and Job Safety Analysis completion.

A lessons learned process has been instituted by lab management in the form of a monthly transmittal of relevant complex-wide events.

Attendance by the review team at ISMS related safety functions such as a VPP planning meeting and an Employee Safety Committee found the genuine enthusiasm by the workers toward improving worker and workplace safety. The team members were inquisitive, showed real initiative and were innovative. (IHAZ1-2)

Hazard classifications were performed for all the Idaho Falls Facilities and determined the facilities do not meet the criteria for Hazard Categories 1 or 2. Therefore, all the facilities fall into the classification known as “Not Requiring Additional Safety Analysis.” Hazard Classifications for the IF facilities were conducted using a hybrid mixture of the previous four digit DOE Orders and DOE Standards. The guidance for the classification known as “Not Requiring Additional Safety Analysis” is not a clearly define as the requirements for nuclear facilities. It is expected that the hazard classifications will be updated to current requirements when the 5-year review period is reached.

A sampling of the Fire Hazards Analysis, an expected aspect of the authorization basis, found the documentation to be compliant with DOE Order 5480.7A, “Fire Protection.” Interviews with leased lab’s senior management found that there is a good understanding of what constitutes the facility authorization basis. Both PDD-1015 and MCP-3571 formally define the Authorization Basis. The IHRG is tasked by PDD-1015, Research and Development Operations, to ensure any new or proposed activities are within the authorization basis. Interviews with IHRG members found that they recognize and accept this responsibility.

Although the IF facilities are not required to have an Authorization Agreement, MCP-3567 allows other than nuclear facilities to have Authorization Agreements if determined appropriate by DOE or the contractor. Because of the variety and complexity of laboratory operations, the inherent risks involved in research activities, and the location within the City of Idaho Falls, consideration should be given to establishing and maintaining an Authorization Agreement for those IF facilities (i.e. leased labs) with the highest risk operations.

Conclusion

The objective has been met. ISMS principles and tenants have successfully and effectively been integrated into hazard identification, analysis and control processes and procedure at IF facilities. Some additional effort with respect to implementation of the Job Safety Analysis process will enhance worker safety.

Issue(s)

- Job Safety Analysis used to identify, analyze and control hazards for maintenance and operational activities may be too broad in scope to adequately protect the worker. (IHAZ1-1)

Strength(s)

- Worker involvement in safety improvement efforts such as VPP and employee safety teams is inquisitive, enthusiastic and has a positive influence on safety. (IHAZ1-2)

Inspector _____ Richard Caummisar	Team Leader _____ Roy Schepens
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Sub-Team: Idaho Falls Facilities (IFF)	FUNCTIONAL AREA: IMG.1 DATE: March 23, 2000
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OBJECTIVE: IMG.1 An integrated process has been established and is utilized to identify and prioritize specific mission discrete tasks, mission process operations, modifications and work items. An integrated process has been established that ensures that mechanisms are in place to ensure continuous improvements are implemented through an assessment and feedback process, which functions at each level of work and at every stage in the work process. (CE II-1, CE II-5)

CRITERIA:

9. Procedures and/or mechanisms that require line management to identify and prioritize mission-related tasks and processes, modifications, and work items are in place and utilized by personnel.
10. Procedures and/or mechanisms are in place and utilized by personnel to ensure identified work (i.e., mission-related tasks and process, processes or facility modification, maintenance work, etc.) can be accomplished within the standards and requirements identified for the facility.
11. Procedures and/or mechanisms are in place and utilized by personnel to collect feedback information such as self-assessment, monitoring against performance objectives, occurrence reporting, and routine observation. Personnel assigned these roles are competent to execute these responsibilities.
12. Procedures and/or mechanisms are in place that develops feedback and improvement information opportunities at the site and facility levels as well as the individual maintenance or activity level. The information that is developed at the individual maintenance or activity level is utilized to provide feedback and improvement during future similar or related activities. Corrective actions include identifying the causes and working to prevent recurrence.
13. Procedures and/or mechanisms are in place and utilized by managers to identify improvement opportunities. Evaluation and analysis mechanisms should include processes for translating operational information into improvement processes and appropriate lessons learned.
14. Procedures and/or mechanisms are in place and utilized by managers to consider and resolve recommendations for improvement, including worker suggestions.
15. Procedures and/or mechanisms are in place, which include a process for oversight that ensures that regulatory compliance is maintained.

16. The contractor has mechanisms in place to direct, monitor, and verify the integrated implementation of ISMS as described in the ISMS Description. Implementation and integration expectations and mechanisms are evident throughout all institutional line and support organizational functions.

APPROACH:

Record Review: Review the facility or activity long-range planning documentation. This should include such items as summary schedules, plan of the week schedules, long-range schedules, modification schedules, etc.

Review the implementation of the mechanisms that line managers utilize to identify and prioritize mission-related tasks and processes, modifications, and work items. All direct funded work is controlled by procedures found in MCP-14, "Graded Approach to Defining Project Controls

Review the procedures and/or mechanisms that are utilized by the facility or activity to ensure that identified work is accomplished in accordance with established standards and requirements. Standards and requirements are rolled down to the facility level for implementation utilizing the process described in MCP-2447, "Requirements Management." Review facility processes for ensuring standards and requirements promulgated by the MCP-2447 process are reflected in activities at the facility.

Review the implementation of INEEL Configuration Management Program described in PLN-485, "Project Plan for the Configuration Management Project," PRD-115, "Configuration Management" and STD-107, "Configuration Management Program." Review MCP-2811, "Design and Engineering Change Control," MCP-3630, "Computer System Change Control," MCP-3572, "System Design Descriptions," MCP-3573, "Validating, Controlling, Using, and Revising Vendor Data" and MCP-2377, "Development, Assessment and Maintenance of Drawings," to establish the facility/activity level configuration management processes at the INEEL. Review training records of personnel in the configuration management subject area to determine that they meet competency standards.

Review the performance monitoring documentation for the feedback and continuous improvement process. This should include such documents as occurrence reports, deficiency reports, results of post-job reviews, safety observer reports, Issue Communication and Resolution Environment (ICARE) reports and reports of self-assessments and independent assessments. Ensure occurrence reports and ICARE entries are being completed in accordance with the requirements specified in MCP-190, "Event Investigation and Occurrence Reporting" and MCP-2723, "Reporting and Resolving Employee Safety Concerns & Suggestions," respectively. Process deficiencies should be addressed by following the process described in MCP-598, "Process Deficiency Resolution."

Lessons learned are managed and processed in accordance with the requirements described in MCP-192, "Lessons Learned Program." Management self-assessments are conducted in accordance with MCP-8, "Self-Assessment Process for Continuous Improvement." The process

of independent assessment of facilities and activities is described in MCP-552, "Conduct of Independent Oversight Assessments." The FY-00 schedule of independent oversight assessment activities can be found on the QA and Conduct of Operations internal homepage at URL: <http://home.inel.gov/qa&coo/ipa.html>. The Facility Excellence Program, described in PDD-1011, is a structured means of regularly assessing facilities for compliance in any of these areas.

Review procedures and documentation for work control to determine that adequate feedback and improvement mechanisms are in place at the individual maintenance or activity level. This should include documentation pertaining to the implementation of MCP-3003, "Performing Pre-Job Briefings and Post-Job Reviews," as the activity-level requirements document.

Review actual reports, results, schedules, and available data from these processes, as well as corporate processes and procedures, to evaluate the effectiveness of the implementation of these mechanisms. [Specifically, evaluate the effectiveness of issue prioritization issue tracking identification and resolution of management system weaknesses associated with issues, and field follow-up, validation, and closure of corrective actions per MCP-598. For self-assessments, evaluate the implementation effectiveness of scheduled self assessment activities, including the analysis and entry of results into the appropriate tracking system as defined in MCP-8.](#) Additionally review charters and output documentation from any corporate/site wide ISMS coordinating committees.

Interviews: Interview management personnel responsible for the identification and prioritization of work. This should include personnel such as those responsible for long-range planning documentation, schedule preparation, etc.

Interview personnel responsible for administering the feedback and continuous improvement process. This should include personnel such as those responsible for occurrence reporting, lessons learned preparation, preparation, ICARE entries, self-assessment, and oversight. Interview personnel responsible for capturing and utilizing feedback and improvement information during individual maintenance or other work activities. Interview line management to determine level of knowledge and involvement in the implementation of programs and activities such as the ICARE process.

Interview personnel and responsible managers in the configuration management subject area. Interview line managers to assess the establishment of clear roles and responsibilities and the understanding of the configuration management support provided to line managers. Interview chairman and key members of ISMS coordinating committees.

Observations: Observe work definition and planning activities to ensure that requirements specified by documents such as the Requirements Management process (MCP-2447) are considered and implemented at the activity level.

As possible, observe an Operational Safety Board (OSB) meeting. If possible, observe a program or project Change Control Board meeting. Observe a Pre-Job Briefing and a Post-Job Review. Observe any critiques, which may arise throughout the course of the observation process.

Observe events such as the development of an Engineering Change Form (ECF), Computer System Change Form (CSCF), or Document Action Request (DAR) for a technical document.

Observe any site level ISMS committee meetings.

Record Review

- PDD-1004, INEEL Integrated Safety Management System, Rev 4, 2/25/00
- PDD-1005, Site Operations Manual, 3/17/00
- PDD-1054, ES&H Infrastructure Program, 1/13/00
- PLN-539, Configuration Management Plan for the Warning Communications Center (WCC), 10/1/99
- PRD-5060, Occupational Safety Functions, Roles, Responsibilities, and Interfaces, 1/28/00
- CTR-8, Town Facilities Corrective Action review Board, 12/13/99
- CTR-25, Issues Screening Board, 9/17/99
- CTR-26, Charter for the Company Employee Safety team, 2/8/00
- CTR-31, Charter for the Environmental, Safety and Health Risk Review Board, 1/6/00
- CTR-45, Charter for Idaho Falls Facility Operations Safety Board, 8/20/99
- STD-101, Integrated Work Control
- MCP-4, Contractor Performance-Based Business Management Process, 3/30/99
- MCP-8, Self-Assessment Process for Continuous Improvement, 8/31/99
- MCP-14, Graded Approach to Defining Project Controls, 7/30/99
- MCP-190, Event Investigation and Occurrence Reporting, 9/13/99
- MCP-192, Lessons Learned Program, 6/10/99
- MCP-298, Protective Services Self-Assessment Program, 5/7/99
- MCP-553, Stop Work Authority, 3/15/99
- MCP-598, Process Deficiency Screening and Resolution, 11/3/99
- MCP-2447, Requirements Management, 4/30/99
- MCP-2668, Financial Planning, Administration, and Control of Indirect Activities/Work, 8/16/99
- MCP-3003, Performing Pre-job and Post-Job Reviews, 8/9/99
- MCP-3449, Safety and Health Inspections, 3/31/98
- MCP-3480, Environmental Instructions for Facilities, Processes, Materials, and Equipment, 2/8/00
- MCP-3562, Hazard Identification, Analysis and Control of Operational Activities, 7/31/99
- MCP-3571, Independent Hazard Review, 2/2/00
- MCP-3652, Roles and Responsibilities of Idaho Falls Facilities Tenants, 9/9/99
- MCP-3630, Computer System Change Control, 8/26/99
- INEEL Institutional Plan, FY2000-2004
- IFF Long Range Plan, undated
- Work Package Documentation, Budget Input Worksheet, Idaho Falls Facilities ESH&QA Support, 8/17/99
- Letter from J. Malmo to S. Winn, Subject: BBWI Level Documents Rolldown for Idaho Falls Area (IRC-2000-06), 2/23/00

- Requirements Rolldown Checklists for IFF SAD, Leased Facilities, and Town Support Services, 3/10/00
- Various Employee Position Descriptions, Employee Training Plans, Employee Qualifications/Certifications and Employee Training Histories
- Individual Accident/Incident Report
- Independent Oversight Assessment, Corrective Action Effectiveness Assessment, Report No. 99-SP-035, 5/3/99
- Independent Oversight Assessment, Effectiveness of CARB Implementation, Report No. 99-SP-015, 6/29/99
- Deficiency Report No. 10742
- Safety Concern No. 10736
- ESH&QA Performance Measures and Trending report in Support of Operational Excellence, INEEL/EXT-99-00516, January 2000
- Agenda, Unit 9 VPP Meeting, 3/21/99
- VPP Management Presentation, Presented by Unit 9 EST, 3/9/00
- Town CARB Meeting, Agenda #16, including a List of Open Deficiency Reports and Safety Concerns Reports and List of Recently Closed Deficiency Reports, 3/21/00
- Interoffice Memorandum from P. N. Creighton to Distribution, Subject: February Injury/Illness Summary Reports, 3/9/00
- IFF Plan of the Week Meeting Agenda, 3/20/00
- IFF Facilities Plan of the Day, Status Sheet for 03/21/00
- Work Order 26139, TSA/B & ISC – Check/Clean Domestic Hot Water Heaters
- Work Order 26125, TSA – Install 20 Amp Receptacle in Copy Center
- Targeted Self Assessments, R&D Labs [5-Year Plan], undated
- Manager Self Assessments, Desktop Guidance for R&D Self Assessments [R&D homepage], 12/21/99
- R&D Facilities Excellence Walkthrough Schedule
- Interoffice Memorandum from H. Wold to Distribution, Subject: R&D Facility Excellence Walkdown, 12/22/99
- Interoffice Memorandum from J. Welch to J. Kvamme, Subject: Transmittal of Laboratories Revised Integrated Assessment Schedule, 3/9/2000
- R&D Fiscal Year 2000 Integrated Assessment Schedule, 3/9/00
- Email from J. Jansen to W. Christenson, Subject: MCP-3449 Annual ES&H Walkthrough, 11/30/99
- Email from W. Christenson to J. Welch, Subject: Reviewed Hazard Classification for R&D Labs, 3/14/00
- R&D Self Assessment Plan and Status (Optional), NHL-Lab J, CY2000
- AEDL Self Assessment (SA) Checklist, NHL-Lab J, 1/28/00
- R&D Self Assessment (SA) Checklist, NHL-Lab J, 2/29/00
- AEDL Self Assessment Plan and Status, R. G. Bennett, 2/98
- AEDL Self Assessment (SA) Checklist, 12/15/99
- AEDL Self Assessment (SA) Checklist, 1/10/00
- Environmental Technology & Engineering, Checklist Number 3, Theme for the Month of March: “Office/Work Space Ergonomics,” WORKSHEET DRAFT of 3/21/00

- Interoffice Memorandum, S. L. Winn to C. A. Collard, Subject: Periodic Assessment of the Idaho Falls Maintenance and Operations (IFM&O) Directorate Self Assessment Program and Roll-up Summary (XCC-01-00), 3/13/00
- FY2000 Idaho Falls Maintenance and Operations Integrated Self-Assessment Program Plan, 2/28/00
- Idaho Falls Facilities Self-Assessment Metrics for the Months of October 1999 through January 2000
- PLN-604, Self Assessment Program Plan and Schedule for Document/Graphic Services and Workplace Resources, 2/28/00
- Business Management Program Assessment Plan for Information Resource Management FY00. Revision 0, January 2000
- MCP-298, Protective Services Self-Assessment Program, 5/7/99
- Physical Security Self Assessment #2000-62, WCC - Training Records Review, 2/9/00
- Physical Security Self Assessment #2000-168, WCC - Ft. St. Vrain Emergency Preparedness Drill, 3/8/00
- Safeguards and Security Self-Assessment #1999-119, Warning Communications Center - Self-Assessment, 4/28/99
- Safeguards and Security Self Assessment Finding Records for Assessment # 1999-199
- Deficiency Report No. 7027, Submitted 4/21/99
- Deficiency report No. 7028, Submitted 4/21/99
- Protective Force Safety & Health Inspection Report (Per MCP 3449), Inspection No. 1999-112, 8/31/99
- List of Open Deficiency Reports for IF Facilities [3/20/00]
- List of Open Safety Concerns for IF Facilities [3/20/00]
- Email from D. Heiser to J. Welch, Subject: ICARE IF Labs CARB Report: 03/19/2000, 3/19/00
- Email from D. Heiser to S. Winn, Subject: ICARE IF Facilities CARB Report: 03/19/2000, 3/19/00
- Occurrence Report No. ID-BBWI-TOWN-2000-0001, Computer Equipment Damage Caused by Structural Failure, 3/14/00
- Nuclear Tracking System Noncompliance Report No. NTS-ID-BBWI-INEELPROGM-1999-0002, Continuing Issues Management Program Deficiencies, 3/8/00
- INEEL Issues Management Program Improvement Plan, Quality Programs Department, 3/20/00
- Email from K. Truman to All Supervisors and Above, Subject: Management FYI – March 9, 2000
- Email from K. Truman to All Supervisors and Above, Subject: Management FYI – March 13, 2000
- Email from J. Marinus to All Lab Managers, Subject: Exit/Egress Requirements for Laboratories, 10/16/98
- Email from J. Marinus to distribution, Subject: Monthly, 11/22/99
- Email from J. Marinus to Distribution, Subject: Lab Custodian/Manager Monthly, 4/23/99; including Lessons Learned Regarding Proper Use of Hoisting and Rigging Equipment in Research Applications and Failure to Wear Eye Protection Results in Laser Burn
- Email from J. Marinus to Distribution, Subject: Lab Custodian/Manager Monthly, 1/2/99

- WASP, Worker Applied Safety Program Total Safety Culture Brochure
- WASP Total Safety Culture, General Observations Checklist
- WASP Total Safety Culture, Office Worker Observations Checklist

Interviews Conducted

- IFF Site Area Director
- IRC Site Area Director
- Operations Supervisor
- Manager, High Level Waste Program Support
- Facility Manager
- WCB Building Manager/VPP Unit 9 EST
- TSA/TSB & ISC Building Manager
- IFF ESH&QA Manager
- Industrial Hygienist
- Industrial Safety Engineer (2)
- Subcontractor Plumber
- Subcontractor Electrician
- Engineer (2)
- Principal Investigator (3)
- Advisory Engineer Scientist
- WCC Supervisor
- Self Assessment Coordinators (3)
- CARB & Self Assessment Coordinator
- Laboratory Custodian (2)
- Leased Lab Manager

Observations

- Plan of the Week Meeting
- Plan of the Day Meeting
- Independent Hazard Review Group Meeting, including walkdown
- Accident/Injury Investigation
- Town Facilities CARB Meeting
- VPP Unit 9 Safety Meeting
- Performance of Management Self Assessment
- Pre-job Briefing, EDPAC AC Unit, Willow Creek Building
- Performance of Work Orders 26125 and 26139
- Observation of Work at North Holmes Lab

Discussion of Results

The INEEL Institutional Plan establishes the overall strategic thrusts and vision for activities performed at the INEEL. Procedures and mechanisms are in place that require line management to identify and prioritize mission related tasks and processes, modifications, and work. From a business perspective, most of these mechanisms are defined in Company-wide Manual 5, Project

Cost and Schedule Controls. From the perspective of the IFF SAD, activities are primarily focused on providing infrastructure support for office workers and R&D laboratory work. Proposed modifications or changes that affect facilities are evaluated through the IFF Operations Safety Board. Work Packages define the general tasks for the year that are then accomplished within established work control processes for maintenance (STD-101) and operations (MCP-3562). Upon approval of a research proposal, the Independent Hazard Review process is used to determine that the activity is within the authorization basis and to identify, control and mitigate hazards. Mechanisms used to identify and prioritize day to day activities include the IF Facilities Long Range Plan, IFF Plan of the Week, and IFF Plan of the Day.

A formal process was used to document the rolldown and applicability of BBWI company documents for activities conducted in IF Facilities. The rolldown documents for the IF Facilities, including leased laboratories, Warning Communications Center, Information Resources Management, and Workplace Resources Department, were reviewed and concurred in by the DOE-ID Facility Director.

Evidence of configuration management program implementation was identified during reviews of ICARE issues and observations of work activities. A deficiency report (DR 10742) and safety concern (SCR 10736) related to configuration management were submitted last month. In accordance with the deficiency screening and resolution process, the root cause was determined and a corrective action plan developed. The corrective action plan requires the development of a Configuration Management Plan for IF Facilities, and the training of personnel on this plan. Evidence of activities to recover the configuration of facilities was noted in the labeling of valves at the Willow Creek Building. Another example demonstrating implementation of this program is the Configuration Management Program Plan for the Warning Communication Center (PLN-539) that was approved in October 1999.

Procedures and mechanisms are in place and utilized by personnel to collect feedback information, including self assessments, facility excellence walkdowns, monitoring of performance measures, occurrence reporting, and investigation of injuries and accidents. Self-assessment and management assessment programs have been established in the assessed organizations in accordance with MCP-8 and MCP-3449. Self-Assessment Coordinators have been designated and assist with the development of schedules and implementation of the program. The semi-annual Integrated Assessment Program Review for the Idaho Falls Maintenance and Operations Directorate was recently completed. The review was insightful and offered several useful suggestions for improving worker assessment skills, tracking of self-assessment performance measures, and documentation of assessments.

Required safety and health inspections (MCP-3449) have been integrated into the self-assessment schedules for IF Facilities and R&D activities. Under MCP-3449, management is required to (1) involve employees or safety teams in inspections, (2) conduct or participate in inspections, and (3) ensure that all work areas are inspected annually by an appropriate S&H professional. An inspection being conducted by an employee and his immediate supervisor was observed. This activity offered a valuable opportunity for the employee and supervisor to interact one-on-one to discuss various safety issues within the workplace, document the observations, and then enter issues into appropriate company tracking systems. (IMG1-3) The

R&D organization has scheduled monthly management assessments. Based on information that is being compiled for the R&D semi-annual Integrated Assessment Program Review, about 80 to 85% of the scheduled management assessments are being completed. One instance was noted where an AEDL Self-Assessment Plan developed in 1998 for the May Street North laboratory was being used to guide activities during the current fiscal year. The process used by the R&D laboratories to ensure that annual inspections of work areas are conducted by S&H professionals represents an area for improvement. The current process has not been well defined, and a shared understanding of roles, responsibilities, and expectations has not been developed between management and the H&S professionals. (IMG1-1) It should be noted that other inspection activities completed in recent months have provided comprehensive safety and health reviews of the laboratories.

Although not required by MCP-8, the R&D Self Assessment Coordinator has developed an informal schedule of self assessments for the next 5 years. (IMG1-4) This time period was chosen because safety basis documentation must be reviewed every 5 years, and the coordinator wanted to ensure that these important commitments were not inadvertently missed.

The processing of a recent occurrence report was reviewed. Involved personnel were appropriately trained to carry out this assignment.

The Town Facilities Corrective Action Review Board (CARB) effectively reviewed open and recently closed corrective actions for deficiency reports. The CARB agenda covered topics such as VPP Unit Status, Safety Statistics, Type A investigation Actions, Occurrence Reports, and ICARE Deficiency Reports, Safety Concerns, and Employee Suggestions/Concerns. Review of corrective actions demonstrated direct involvement by the CARB and IFF SAD to ensure that the causes of identified deficiencies were effectively addressed and resolved by the proposed corrective actions. Overall, deficiencies, safety concerns, and employee suggestions were being effectively managed, with only a few items overdue by less than one week. The Town Facilities CARB is an important management tool for monitoring the corrective action process and takes an active role to maintain the standard for performance in the area of issues management and corrective actions.

During the observation of a Senior Operations Review Board (SORB) meeting, a presentation was made to senior management regarding the need to upgrade the issue management system. The company issue management coordinator had not been seeking input, nor talking to facility line management about line management's needs relative to the proposed changes to the issue management system. Discussions with facility personnel involved in issue management activities revealed that they are reasonably satisfied with the present system and desire stability in order to utilize the system more efficiently. These two opposite positions demonstrate that corporate and facility issue management personnel are not effectively integrated. This integration is essential to ensure that any future changes meet line management's needs, as well as incorporate line management experience into the SME development of an improved process. (IMG1-2)

Procedures and mechanisms are in place and are being used to collect feedback information, including self-assessments, independent assessments, post-job briefings, monitoring against

performance objectives, occurrence reporting. Evidence of satisfactory identification and use of lessons learned from within the organization and outside the company were observed.

The various modules of the ICARE process provide formal mechanisms for managers to consider and resolve recommendations for improvement. Additionally, the Voluntary Protection Program (VPP) and Employee Safety Teams provide effective mechanism and avenues for considering and resolving improvement recommendations and worker suggestions. The teaming of management and workers in mutually beneficial actions to improve processes and work conditions appears to be an increasingly important aspect of the feedback and improvement cycle within the IF Facilities and leased laboratories. (IMG1-5)

Several mechanisms have been established to promote oversight that will help ensure that regulatory compliance is maintained. The requirements rolldown process helps ensure that appropriate requirements and procedures are used to control work and activities. Self-assessment activities by workers, management, ESH&QA professionals provide ongoing opportunities to identify deficiencies or non-compliant conditions. The facility excellence program provides another opportunity for different individuals to evaluate the workspaces and ask questions. The BBWI independent assessment organization provides a structured mechanism for reviewing regulatory compliance.

A secondary task during this review was to evaluate the site mechanisms for consistency with previously reviewed processes to determine the continued emphasis on ISMS by BBWI management. As a result of this tasking, reviews of several site process were conducted to make that determination.

Process reviews were conducted on various areas of weaknesses that have been identified during previous reviews. In all areas reviewed, clear substantial progress was demonstrated. Of particular note were the advances in the integration of environmental hazards into the Hazard Identification Process. During previous reviews the processes for identification of environmental hazards were conducted separately due to the development of improved environmental hazard identification processes. Those processes have now been improved and included in the key processes (e.g., STD-101, MCP-3562, and MCP 3471). (IMG1-6) Additionally, the ability to search over 40 environmental data bases of environmental hazards electronically is well on the way to completion and is expected to be in place in July. Both improvements indicated the resolve of INEEL to improve the ISM process.

Other areas of improvement that were noted were the areas of the maintenance planning and work package preparation, engineering support that is being provided to the INEEL facilities, the formalization of a Conduct of Engineering protocol, and continued work in the improvement of the Configuration Management Program. Other noteworthy improvements were in Conduct of Operations and Lockout/Tagout training.

The Executive Council Meeting and the Senior Operations Review Board meetings were attended. As expected these meetings held a different tenor and focus from the meetings attended during previous reviews. Previously these meetings had strong ISMS implementation focus while the present meetings discussed management issues with a very small focus toward ISMS.

During the meetings observed on this review, the strong focus was toward changing, establishing, and installing new functional area processes and systems to better achieve support functional area goals.

Conclusion

The objective has been met.

Issue(s)

- The current process used by R&D laboratories for annual inspections of areas per MCP-3449 is not well defined, and a shared understanding of roles, responsibilities, and expectations has not been developed between management and S&H professionals. (IMG1-1)
- Corporate and facility issue management personnel are not effectively integrated (IMG1-2)

Strength(s)

- The joint performance of a self-assessment by a manager and worker offered a valuable opportunity for sharing information and learning about company processes for handling issues, concerns and suggestions for improvement. (IMG1-3)
- The development of an informal 5 year schedule of self assessments allows the R&D Self Assessment Coordinator to anticipate and remember long-term commitments and required program review. (IMG1-4)
- The teaming of management and workers in mutually beneficial actions to improve processes and work conditions appears to be an increasing important aspect of the feedback and improvement cycle within the IF Facilities and leased laboratories. (IMG1-5)
- The site processes reviewed indicated that substantial progress has been made in improving weaknesses. Of particular note was the integration of environmental hazards into STD-101, MCP-3562, and MCP-3571. (IMG1-6)

Inspector _____	Team Leader _____
Richard L. Dickson	Roy Schepens

Sub-Team: Idaho Falls Facilities (IFF)	FUNCTIONAL AREA: IMG.2 DATE: March 23, 2000
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OBJECTIVE: IMG.2 Clear and unambiguous roles and responsibilities are defined and maintained at all levels within the facility or activity. Managers at all levels demonstrate a commitment to ISMS through policies, procedures, and their participation in the process. Facility or activity line managers are responsible and accountable for safety. Facility or activity personnel are competent commensurate with their responsibility for safety. (CE II-6)

CRITERIA:

7. Procedures and/or mechanisms are in place and utilized by personnel that define the roles and responsibilities for the identification and prioritization of mission-related tasks and processes, facility or process modification, and other related work items.
8. Procedures and/or mechanisms are in place that define clear roles and responsibilities within the facility or activity to ensure that safety is maintained at all levels.
9. Facility or activity procedures specify that line management is responsible for safety.
10. Procedures and/or mechanisms are in place and utilized to ensure that personnel who supervise work have competence commensurate with their responsibilities.
11. Procedures and/or mechanisms are in place and utilized to ensure that personnel performing work are competent to safely perform their work assignments.
12. The contractor is using a process to establish, document and implement safety performance objectives, performance measures, and commitments in response to DOE program and budget execution guidance.

APPROACH:

Record Review: Review contractor organization charts and documents describing the contractor matrix management concept. Review organizational documentation such as PDD-1015 "Research and Development Operations," PRD-5060, "Occupational Safety Functions, Roles, Responsibilities, and Interfaces," MCP-3652, "Roles and Responsibilities of Idaho Falls Facilities Tenants" and other similar documents for SMC to determine the personnel positions with responsibility associated with this objective. Ensure roles and responsibilities for personnel responsible for safety are clearly defined and understood and properly executed. This review could include position descriptions, Form-325.01 "Employee Position Description" and other applicable MCPs that describe roles and responsibilities related to ensuring safety are maintained. The review should consider personnel in line management and staff positions and should evaluate whether line managers are responsible for safety.

Review the procedures established such as PDD-13 “Training and Qualification Program,” MCP-27 “Preparation and Administration of Individual Training Plans,” and MCP-33 “Training Qualification and Certification” to ensure that managers and workers are competent to safely perform work. Review the personnel records which should include the “Training and Implementation Matrix” (TIM), “Individual Training Plans” and “Employee Training History,” to identify the individual qualifications that meet the elements of the position descriptions. Review the applicable records of qualification and certification. Review any training or qualification material, including training and qualification manuals such as Manual 12 and the associated processes that support gaining or verifying competence to fill the positions.

Review the process established to establish, document and implement safety performance objectives that support DOE program and budget execution guidance.

Interviews: Interview selected personnel at all levels of facility or activity management who are identified by the record review above. Verify their understanding and commitment to ensuring that safety is maintained for all work at the facility or activity. Interview a selected number of supervisors and workers to determine their understanding of competency requirements and their commitment to performing work safely. Interview contractor senior managers to determine their knowledge of the ISMS process and their commitment and participation in the process. Interview contractor line managers who are responsible for the establishment and implementation of the safety performance measures and safety objectives.

Observations: As possible, observe training being delivered for key programs such as hazards identification and analysis. Observe scheduled activities that demonstrate that clear roles and responsibilities are established and understood, that line managers are actively involved with decisions affecting safety, and that managers and workers are competent to perform their duties.

As possible, observe activities such as weekly planning meetings, plans of the day, event critiques, safety training, OSB meetings, Pre-job briefs, Site Operations Council (SOC) meetings, Corrective Action Review Boards (CARBS) and safety meetings that may provide good examples of the safety training and decision making process. Activities such as facility/process operations, testing, and maintenance also provide opportunities to observe personnel in the execution of roles and responsibilities, their understanding of procedures, awareness of hazards and management commitment to safety.

Record Review

- PDD-13, Conduct of Training, 10/4/99
- PDD-1004, INEEL Integrated Safety Management System, Rev 4, 2/25/00
- PDD-1005, Site Operations Manual, 3/17/00
- PRD-5060, Occupational Safety Functions, Roles, Responsibilities, and Interfaces, 1/28/00
- CTR-8, Town Facilities Corrective Action Review Board, 12/13/99
- CTR-45, Charter for Idaho Falls Facility Operations Safety Board, 8/20/99
- STD-101, Integrated Work Control
- MCP-27, Preparation and Administration of Individual Training Plans, 2/3/00

- MCP-33, Personnel Qualification and Certification 12/17/99
- MCP-3562, Hazard Identification, Analysis and Control of Operational Activities, 7/31/99
- MCP-3571, Independent Hazard Review, 2/2/00
- MCP-3652, Roles and Responsibilities of Idaho Falls Facilities Tenants, 9/9/99
- MCP-3768, Protective Services Roles and Responsibilities, 1/5/00
- MCP-3845, DRAFT, Idaho Falls Maintenance and Operations Roles and Responsibilities, 3/20/00
- Work Order 26139, TSA/B & ISC – Check/Clean Domestic Hot Water Heaters
- Work Order 26125, TSA – Install 20 Amp Receptacle in Copy Center
- ESH&QA Performance Measures and Trending report in Support of Operational Excellence, INEEL/EXT-99-00516, January 2000
- Agenda, Unit 9 VPP Meeting, 3/21/99
- Town CARB Meeting, Agenda #16, including a List of Open Deficiency Reports and Safety Concerns Reports and List of Recently Closed Deficiency Reports, 3/21/00
- WASP, Worker Applied Safety Program Total Safety Culture Brochure
- WASP Total Safety Culture, General Observations Checklist
- WASP, Total Safety Culture, Office Worker Observations Checklist
- Email from P. Bergeson to J. Welch, Subject: WASP Summary
- Trending Data Presented to Employee Safety Team, including Employee Safety Concerns, Submissions of Form 231.01, Listing of Root Causes, Facility Excellence Walk-Through Most Common Findings, Injury/Illness Statistics for IRC/Leased Labs, Employee Safety Concerns FY99 – August
- Fiscal Year 2000 IFF Monthly Performance Model for Months of January and February 2000

Interviews Conducted

- R&D Labs Site Area Director
- IFF Site Area Director
- Manager, High Level Waste Program Support
- WCB Building Manager/VPP Unit 9 EST
- TSA/TSB & ISC Building Manager
- Industrial Safety Engineer
- Subcontractor Plumber
- Subcontractor Electrician
- CARB & Self Assessment Coordinator

Observations

- Independent Hazard Review Group Meeting, including walkdown
- Accident/Injury Investigation
- Town Facilities CARB Meeting
- VPP Unit 9 Safety Meeting
- Pre-job Briefing, EDPAC AC Unit, Willow Creek Building (Work Order 26142)
- Performance of Work Orders 26125 and 26139

- Observation of Work at North Holmes Lab
- WASP, Worker Applied Safety Program Training

Discussion of Results

Roles and responsibilities for key company positions and management boards are defined in PDD-1004, INEEL Integrated Safety Management System and PDD-1005, Site Operations Manual. At the local level, roles and responsibilities for individual positions are defined in company documents for specific organizations or groups such as Idaho Falls Tenants (MCP-3652) and Protective Services (MCP-3768). The roles and responsibilities document for Idaho Falls Maintenance and Operations (MCP-3845) is currently in draft. These documents clearly define roles and responsibilities for identification and prioritization of mission related tasks and processes, facility or process modification, and other related work items.

Procedures and mechanisms are in place that define clear roles and responsibilities for activities conducted at Idaho Falls facilities to ensure that safety is maintained. Maintenance activities are conducted in accordance with STD-101, Integrated Work Control Process. Operational activities are conducted in accordance with MCP-3562, Hazard Identification, Analysis and Control of Operational Activities, and research is conducted in accordance with requirements of MCP-3571, Independent Hazard Review. Interviews and observations indicate that these procedures and mechanisms are understood and routinely used to control work. Facility or activity procedures specify that line management is responsible for safety.

Employee Position Descriptions (Form 325.01), Individual Training Plans (ITPs), Employee Qualifications/Certifications, and Employee Training Histories for several managers, supervisors, engineers, and self-assessment coordinators were sampled and discussed during interviews. All employees sampled had current ITPs. Qualifications and training histories in the TRAIN database were reviewed during interviews, and individuals indicated that they are accurate and complete. Each of the position descriptions contained an environment, safety and health statement that individuals must be familiar with and comply with all relevant health and safety requirements. It is noted that the statement contains no explicit statement or expectations with respect to “environmental” responsibilities. (see SMG2-1) Position descriptions for managers contained an additional requirement that the individual demonstrate a knowledge of and have the ability to establish adherence to all ES&H requirements associated with the work that the manager would supervise. Information obtained during interviews, record reviews and observations indicated that line managers had training, qualifications, and experience and were competent commensurate with their responsibilities.

Position descriptions, training, and qualifications of individuals performing work were reviewed to assess competence of workers to safely perform their work assignments. Training records of workers assigned to repair the EDPAC rooftop dry cooler (WO 26142) were reviewed by the work supervisor as part of the pre-job briefing to ensure that workers had received required training and that qualifications were current. The supervisor indicated that this was a routine practice and is required by the Pre-job Briefing Checklist of MCP-3003. Procedures are used to evaluate operational activities (MCP-3562) and ensure that hazards identification and mitigation information is incorporated into work documents. For research work, involved personnel must

read, understand, and abide by the requirements established in the Independent Hazard Review documents and approval letter. Based on the record reviews, interviews and observations, procedures and mechanisms are in place and utilized to ensure that personnel performing work are competent to safely perform their work assignments.

A number of processes are used to establish, document and implement safety performance objectives and measures. The performance measures and trending report provides information on company and individual area performance. Additionally, injury and illness summary reports are prepared monthly to monitor the injury/illness severity index, day away cases, first aid cases and recordable cases. Individual VPP Units routinely track and trend employee suggestions, accident/injury investigations, ergonomic assessments, and inspections. Information from the WASP (Worker Applied Safety Program) is also tracked and trended. Monthly meetings are held between the DOE Facility Manager and the IFF Site Area Director to discuss activities, issues, and the Performance Evaluation Measurement Plan. A set of performance measures are addressed in these monthly meetings.

Conclusion

The objective has been met.

Issue(s)

- None

Strength(s)

- None

Inspector _____	Team Leader _____
Richard L. Dickson	Roy Schepens

Sub-Team: Idaho Falls Facilities (IFF)	FUNCTIONAL AREA: IOP DATE: March 23, 2000
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OBJECTIVE: IOP.1 An integrated process has been established and is utilized to effectively plan, authorize and execute the identified work for the facility or activity. (CE II-4)

CRITERIA:

6. Procedures and/or mechanisms are in place and utilized to ensure that work planning is integrated at the individual maintenance or activity level, and work planning fully analyzes hazards and develops appropriate controls.
7. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to confirm that the facility or activity and the operational work force are in an adequate state of readiness prior to authorizing the performance of the work.
8. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to gain authorization to conduct operations.
9. Procedures and/or mechanisms are in place and utilized which ensure that safety requirements are integrated into work performance.
10. Procedures and/or mechanisms are in place and utilized which ensure those adequate performance measures and indicators, including safety performance measures are established for the work.
6. Workers actively participate in the work planning process.

APPROACH:

Record Review: As applicable, review documentation and/or mechanisms that govern the work control process for planning, authorizing, and conducting work such as STD-101 "Integrated Work Control Process," MCP-3562 "Hazard Identification, Analysis and Control for Operational Activities," MCP-3571 "Independent Hazard Review," PRD-5043 "Operational Safety Boards", PDD 1012 "Program Description Document for Environmental Management Ssystem" and MCP-3480 "Environmental Instructions for Facilities, Processes, Materials and Equipment." This review should assess the adequacy of the documents and the status of their implementation, to meet the requirements listed above and determine that the maintenance and work control process is effectively integrated into the facility/activity procedures. In particular, note the integration of hazard identification and controls, (i.e. chemical, electrical, radiological, waste streams, environmental) into the work planning process. Review documentation that describes roles and responsibilities for the work control process, worker involvement in all aspects of the activity, and the work authorization process. Controls for individual work items or activities such as Job

Hazards Analysis (JHA), Radiation Work Permits (RWP), Hazard Profile Screening Checklist (HPSC), Work Control Forms (WCF), Confined Space Entry Permit, and operating procedures should also be evaluated.

As applicable, review the ALARA process to ensure the basic concepts of ALARA as well as any ALARA Committee recommendations are incorporated into the work control documentation.

Review the integration of subcontractor work control into the facility work control process. Evaluate the review of subcontractor work control documentation, the approval of the documentation, work authorization, and the oversight of subcontractor work in the facility.

Review the performance measures and performance indicators using the “INEEL Performance Measures and Trending Report,” MCP-3521 “Trending Center,” self -assessments conducted in accordance with MCP-8 “Self-Assessment Process for Continuous Improvement,” or the Facility Excellence Program PDD-1011 “Facility Excellence Program.” Determine if these tools provide information that is truly a direct indicator of how safely the work is being performed.

For RWMC, review the documentation pertaining to the processes used to prepare Authorization Agreements, MCP-3567 “Authorization Agreements with Authorization Basis List.” Review the Authorization Agreements for the selected facilities to determine if they are adequate, that they demonstrate effective integration, and that proper procedures were followed to prepare, review, and approve them.

Interviews: Interview personnel responsible for preparing, authorizing, performing, and measuring the performance of the work. This should include personnel such as those responsible for preparing and maintaining work control documents, hazard identification and control documents, the Plan of the Day (POD), equipment status files, pre-job briefings, and the conduct of facility or activity operations.

Interview personnel responsible for individual activity procedures and controls (e.g. JHAs, RWPs, HPSCs, WCFs, etc.) Verify adequate worker involvement at each step of the process.

Interview personnel responsible for the development and implementation of the self-assessment program including individuals who participate in self-assessments. For RWMC, interview those individuals responsible for development, maintenance, and approval of the Authorization Agreement. Interview members of the management team charged with adherence to the requirements listed within the Authorization Agreement.

Observations: Observe the actual authorization and performance of work activities. Observe a plan of the day or plan-of-the-week meeting. As possible, attend an Operational Safety Board (OSB) meeting or an Independent Hazard Review Group (IHRG) meeting with field verification that hazard controls specified by the hazards control documents are being implemented. As possible, Team members should observe the development of a maintenance work package as well as the field execution of a maintenance work package. Observation could include the pre-

job brief, authorization by the managers to proceed, command and control of the work, review of safety requirements, etc.

As possible, observe work hazard identification activities (e.g. JHAs, RWPs, etc.) and the application of MCP-3562 during an operational procedure walk-down and review. Observe worker involvement in these processes.

Record Review

- STD-101, Integrated Work Control Process, Rev. 3, 12/14/99
- MCP-3562, Hazard Identification, Analysis and Control of Operational Activities, Rev. 2, 3/17/00
- MCP-3571, Independent Hazard Review, Rev. 2, 1/31/00
- INEEL Performance Measures and Trending Report
- MCP-3521, Trending Center, Rev. 0, 3/1/99
- MCP-8, Self-Assessment Process for Continuous Improvement, Rev. 3, 8/31/99
- PDD-1015, Research and Development Operations, Rev. 2, 3/17/00
- Independent Hazard Review Packages IRC-00817, IRC-99768, NYC-98-734
- Job Safety Analysis – various
- Passport generated Maintenance Work Orders 19769, 24305, 23509, 26125, 26139
- Plan of the Day schedules
- PDD-1004, INEEL Integrated Safety Management System, Rev. 4, 2/25/00
- May Street Laboratory lease subcontract C89-102460
- PDD-1005, Site Operations Manual, Rev. 2, 3/17/00
- MCP- 3652, Roles and Responsibilities of Idaho Falls Facilities Tenants, Rev. 0, 9/9/99
- IFF Self-Assessment schedules
- Completed IFF self-assessments - various
- PRD-5043, Operational Safety Boards, Rev. 0, 8/2/99
- Facility Hazards Lists for IFF
- Operations procedures TPR-6402 and 6403, and draft TPR-6413
- IFF Performance Indicators
- ICARE printouts for IFF
- Operator Round Sheets
- Engineering Change Form 1879, IRC Firewater Loop Upgrade, and related drawings
- PDD-1012, Environmental Management System, Rev. 2, 8/26/99
- MCP-3480, Environmental Instructions for Facilities, Processes, Materials and Equipment, Rev. 1, 2/8/00
- Senior Supervisory Watch Maintenance Job Review Checklist used for WO 26125
- Monthly Performance Model reports for IFF and R&D
- LST-81, Rev 0, IFF Conduct of Operations Conformance Matrices

Interviews Conducted

- Building Manager
- Leased Lab Tenant Manager
- Leased Lab Building Manager
- Leased Lab Workers (2)
- Maintenance Manager
- Maintenance Planner
- Office Workers (2)
- Site Area Directors (2)
- Telecommunications Technical Lead
- Subcontractor Craftsman (6)
- Print Shop Technician
- Print Shop Supervisor

Observations

- Independent Hazard Review Group meeting including walkdown
- IFF Plan of the Week meeting
- IFF Plan of the Day meeting (2)
- Pre-job briefings WO 26142 and 26125
- Planning walkdown for formica replacement in WCB lobby
- Performance of WO 26125 and 26139
- IFF Corrective Action Review Board meeting
- Hazard Evaluation Group process for draft TPR-6413

Discussion of Results

Procedures and mechanisms are in place and utilized to ensure work planning is integrated at the individual maintenance or activity level, and work planning fully analyzes hazards and develops appropriate controls. Work performed in the Idaho Falls Facilities (IFF) fall into three categories; maintenance, operations and research. Maintenance work is planned and executed using the process defined in STD-101 and work orders are generated using a computerized maintenance management system. Subcontractors hired by the IFF Directorate perform the vast majority of maintenance work. These subcontractors are included in all facets of the STD-101 process, as are BBWI crafts. Procedures that govern operations work are reviewed utilizing the MCP-3562 process for performing hazard identification, analysis, and control for operational activities. Research and development work is conducted in the IFF only after having been scrutinized per the Independent Hazard Review (IHR) process established in MCP-3571. All three of these procedures provide formalized methods for determining hazards associated with the work and establishing appropriate controls to mitigate the hazards. Personnel interviewed understood the requirements established by these procedures. Reviews of work control documents, IHR packages and operations procedures indicated that these requirements are implemented. Interviews indicated that personnel involved in work planning and execution, including subcontractors performing work for the IFF Directorate, understood the methods used for determining and mitigating hazards.

Many of the IFF facilities are leased facilities. The building owners are not employees of BBWI and are not subject to the same requirements for the safe planning and execution of work on their buildings as are BBWI employees. All lease subcontracts require that the Lessor (building owner) inform the Lessee representative (BBWI) before entering, inspecting and repairing the building. New subcontracts such as for the EROB require that the owner, when performing work in the facility, abide by all applicable laws and codes. Lease subcontracts that have been in place for a longer period of time do not contain the same agreements. Discussions with the IFF Site Area Director indicated that he holds building owners and their subcontractors to the requirements established by law and Federal Code. In addition, knowledgeable IFF personnel are assigned to monitor the work being performed by the building owner. The process for ensuring that hazards associated with building owner work are understood by affected BBWI and DOE-ID employees is not formalized. (IOP.1-1)

Procedures and mechanisms are in place and utilized which ensure that there is a process used to confirm that the facility or activity and the operational work force are in an adequate state of readiness prior to authorizing the performance of the work. Maintenance work performed in IFF is developed, reviewed, approved and executed using the process defined in STD-101. Once a Work Control Form is submitted, the hazards associated with the work are determined using three tools; the Hazard Profile Screening Checklist, Facility Hazards List and a planning walkdown of the job site using a team approach. Once written, the work order is reviewed, a workability walkdown is conducted, the work order is approved and then scheduled for work on the Plan of the Day. The Site Area Director approves maintenance work performed in IFF. The job supervisor conducts a pre-job briefing prior to the performance of the work. All individuals interviewed fully understood their "Stop Work" authority and indicated that they would not hesitate to use it. Document reviews, interviews with appropriate personnel and direct observation of work indicated that these processes are implemented. These procedures and mechanisms are considered to be adequate to ensure the facility and workforce are in an adequate state of readiness prior to the performance of work.

All research work is controlled through the Independent Hazard Review Group (IHRG) process specified in MCP-3571. Following completion of this process, the letter authorizing the project is approved by the laboratory manager and the R&D facility manager thereby authorizing the work to be conducted within the bounds established. All personnel involved in the work are required to read and abide by all conditions and requirements of the IHR documents and approval letter. MCP-3571 contains specific mechanisms that require re-evaluation of the project if the scope of the R&D project needs to be changed such that it is different than that specified in the IHR or should new hazards be introduced. These procedures and mechanisms are considered to be adequate to ensure the facility and work force are in an adequate state of readiness prior to the performance of work.

Procedures and mechanisms are in place and utilized which ensure that there is a process used to gain authorization to conduct operations. Operations within the IFF fall under the cognizance of the IFF SAD. A Conduct of Operations conformance matrix, approved by both the IFF SAD and DOE-ID, exists for IFF. Procedures specified in the matrix implement the various chapters of DOE 5480.19. These company level and facility specific supplemental procedures determine

how operations are authorized and performed within IFF. All operations personnel interviewed understood how operations activities are authorized and performed.

STD-101 and MCP-3562 both contain requirements for the use of specific tools for ensuring that hazards associated with maintenance and operations are determined, evaluated and mitigated in the documents used to control work. The tools included in the hazard identification and mitigation process include the Hazard Profile Screening Checklist, Facility Hazards Lists, planning walkdowns, workability walkdowns, pre-job briefings and the establishment of an adequate “stop work” process. Interviews with personnel involved in work control document development, approval and use were all well aware of the procedures and mechanisms used to ensure safety is integrated into work performance and were satisfied that they were adequate to provide the required protection. Reviews of work control documents and operations procedures followed by work observation in the field indicated that the process was adequate for ensuring the safety requirements are integrated into work performance.

The Independent Hazard Review process for research activities also provides for the use of tools to ensure that safety requirements are integrated into work performance. These tools, as specified in MCP-3571, include the IHR Checklist and Hazard Mitigation Plan, Hazard Assessment and Mitigation Plan, Hazard Mitigation Checklist, Work Activities Checklist for compliance with NEPA, Exposure Survey and Assessment forms, and a Conduct of Operations Checklist. Observations of the IHRG process for approving and authorizing research; interviews with personnel involved in the development, approval and use of the IHR; and review of approved and in-use IHR documents in the field indicates that the process is adequate for ensuring that safety requirements are integrated into work performance.

Procedures and mechanisms are in place and utilized which ensure that adequate performance measures and indicators, including safety performance measures, are established for the work. IFF and R&D have established performance measures at both the company and directorate level. Company level indicators include measures in such areas as environmental management, quality assurance, worker safety and health, assessments, and conduct of operations and maintenance. The IFF directorate level performance model includes such areas as worker safety and health measures, several measures for lockout/tagout, and measures for work control. The R&D performance model currently consists of measures for the Employee Safety Team goals and objectives and hazardous waste generation measures. Both the IFF and IRC Site Area Directors believe that the performance measures established by the company and themselves have been effective in driving behavior, including safety, within their directorates.

Workers are involved and actively participate in all aspects of the work planning process. STD-101 and MCP-3562 contain specific requirements for employee participation in the planning process. When planning maintenance work, employees are involved in the planning walkdown, workability walkdown, and pre-job briefings as a minimum. They are also involved in any team planning sessions. Direct observation of pre-job briefings, planning walkdowns, interviews with workers and performance of work in the field indicated that worker participation in the work planning process for maintenance is adequate. Operators are involved in the MCP-3562 process for determining the adequacy of hazard identification and mitigation in operations procedures. Direct observation of a Hazard Evaluation Group review of an operations procedure and

interviews with operators indicated that worker participation in the work planning process for operations activities is adequate. Laboratory personnel are involved in the preparation and performance of work under the IHRG process. Observation of an IHRG and interviews with personnel working under an IHR indicated that worker participation in the work planning process for research and development activities is adequate. Worker participation added value in the work planning process and they demonstrated an enthusiastic attitude toward their participation. (IOP.1-2)

Conclusion

The objective is met for Idaho Falls Facilities. An integrated process has been established and is utilized to effectively plan, authorize and execute the identified work for the facility or activity.

Issue(s)

- There is no formal process for ensuring that hazards associated with building owner work in Idaho Falls Facilities are understood by affected BBWI and DOE-ID employees. (IOP.1-1)

Strength(s)

- Worker participation added value in the work planning process and they demonstrated an enthusiastic attitude toward their participation. (IOP.1-2)

Inspector _____	Team Leader _____
Charles A. Jones	Roy Schepens

Sub-Team: RWMC	FUNCTIONAL AREA: ROP DATE: March 23, 2000
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OBJECTIVE: OP.1 An integrated process has been established and is utilized to effectively plan, authorize and execute the identified work for the facility or activity. (CE II-4)

CRITERIA:

11. Procedures and/or mechanisms are in place and utilized to ensure that work planning is integrated at the individual maintenance or activity level, and work planning fully analyzes hazards and develops appropriate controls.
12. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to confirm that the facility or activity and the operational work force are in an adequate state of readiness prior to authorizing the performance of the work.
13. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to gain authorization to conduct operations.
14. Procedures and/or mechanisms are in place and utilized which ensure that safety requirements are integrated into work performance.
15. Procedures and/or mechanisms are in place and utilized which ensure those adequate performance measures and indicators, including safety performance measures are established for the work.
6. Workers actively participate in the work planning process.

APPROACH:

Record Review: As applicable, review documentation and/or mechanisms that govern the work control process for planning, authorizing, and conducting work such as STD-101 "Integrated Work Control Process," MCP-3562 "Hazard Identification, Analysis and Control for Operational Activities," MCP-3571 "Independent Hazard Review," PRD-5043 "Operational Safety Boards", PDD 1012 "Program Description Document for Environmental Management Ssystem" and MCP-3480 "Environmental Instructions for Facilities, Processes, Materials and Equipment." This review should assess the adequacy of the documents and the status of their implementation, to meet the requirements listed above and determine that the maintenance and work control process is effectively integrated into the facility/activity procedures. In particular, note the integration of hazard identification and controls, (i.e. chemical, electrical, radiological, waste streams, environmental) into the work planning process. Review documentation that describes roles and responsibilities for the work control process, worker involvement in all aspects of the activity, and the work authorization process. Controls for individual work items or activities such as Job

Hazards Analysis (JHA), Radiation Work Permits (RWP), Hazard Profile Screen Checklist (HPSC), Work Control Forms (WCF), Confined Space Entry Permit, and operating procedures should also be evaluated.

As applicable, review the ALARA process to ensure the basic concepts of ALARA as well as any ALARA Committee recommendations are incorporated into the work control documentation.

Review the integration of subcontractor work control into the facility work control process. Evaluate the review of subcontractor work control documentation, the approval of the documentation, work authorization, and the oversight of subcontractor work in the facility.

Review the performance measures and performance indicators using the “INEEL Performance Measures and Trending Report,” MCP-3521 “Trending Center,” self -assessments conducted in accordance with MCP-8 “Self-Assessment Process for Continuous Improvement,” or the Facility Excellence Program PDD-1011 “Facility Excellence Program.” Determine if these tools provide information that is truly a direct indicator of how safely the work is being performed.

For RWMC, review the documentation pertaining to the processes used to prepare Authorization Agreements, MCP-3567 “Authorization Agreements with Authorization Basis List.” Review the Authorization Agreements for the selected facilities to determine if they are adequate, that they demonstrate effective integration, and that proper procedures were followed to prepare, review, and approve them.

Interviews: Interview personnel responsible for preparing, authorizing, performing, and measuring the performance of the work. This should include personnel such as those responsible for preparing and maintaining work control documents, hazard identification and control documents, the Plan of the Day (POD), equipment status files, pre-job briefings, and the conduct of facility or activity operations.

Interview personnel responsible for individual activity procedures and controls (e.g. JHAs, RWPs, HPSCs, WCFs, etc.) Verify adequate worker involvement at each step of the process.

Interview personnel responsible for the development and implementation of the self-assessment program including individuals who participate in self-assessments. For RWMC, interview those individuals responsible for development, maintenance, and approval of the Authorization Agreement. Interview members of the management team charged with adherence to the requirements listed within the Authorization Agreement.

Observations: Observe the actual authorization and performance of work activities. Observe a plan of the day or plan-of-the-week meeting. As possible, attend an Operational Safety Board (OSB) meeting or an Independent Hazard Review Group (IHRG) meeting with field verification that hazard controls specified by the hazards control documents are being implemented. As possible, Team members should observe the development of a maintenance work package as well as the field execution of a maintenance work package. Observation could include the pre-

job brief, authorization by the managers to proceed, command and control of the work, review of safety requirements, etc.

As possible, observe work hazard identification activities (e.g. JHAs, RWPs, etc.) and the application of MCP-3562 during an operational procedure walk-down and review. Observe worker involvement in these processes.

Record Review

- STD-101, Standard for Integrated Work Control Process
- MCP-3562, Hazard Identification, Analysis & Control of Operational Activities
- MCP-3571, Independent Hazard Review
- MCP-3480, Environmental Aspect Evaluation and Maintenance
- PDD-1011, Facility Excellence Program
- PRD-183, Radiological Protection (INEEL Radiological Control Manual)
- MCP-8, BBWI Self-Assessment Process for Continuous Improvement
- MCP-91, ALARA Program and Implementation
- MCP-542, Radiological Control Surveillance Plan
- MCP-552, Conduct of Independent Oversight Assessments
- MCP-553, Stop Work Authority
- MCP-598, Process Deficiency Resolution
- MCP-1803, Configuration Control of RWMC Hardware/Software Systems
- MCP-2723, Reporting and Resolving Employee Safety Concerns and Suggestions
- MCP-2811, Design and Engineering Change Control
- MCP-3003, Performing Pre-Job Briefings and Post-Job Reviews and Form 433.24 Post Job Review Procedure and Checklist
- MCP-2985, Operating Procedures
- Radiological Control Surveillance Reports, September 1999 to February 2000
- RWMC ALARA Goals for year 2000
- ALARA Meeting minutes, October 1999 to February 2000
- RWMC Self-Assessments
- ICARE Safety Deficiency Reports
- RWMC Work Order 23128, Repair RTR
- RWMC Work Order 20383, 12K Excess Flow Valve Inspection
- RWMC Work Order 22966, LLF 16 SA Electric Fire Pump
- RWMC Work Order 22988, LLF 4M Fire Protection System
- RWMC Work Order 21648, Re-Install Air Compressor WMF-636
- RWMC Work Order 22985, TRO 4 Q X-Ray Service (RTR)
- RWMC Work Order 19969, Repair Leaks on 500 Gallon Propane System
- RWMC Work Order 17052, Install P-10 Lines WMF-617
- RWMC Work Order 21674, Repaint Floors in Shop Areas, WMF-656
- RWMC Work Order 26042, TRO 21 W Visual and Operational Check
- RWMC Work Order 26037, TRE 102 W TSA-RE Generator

- RWMC Work Order 18601, TRO 43 A ACGLF Annual Test
- RWMC Work Order 23529, 55-Ton Cask Grapple Recovery
- RWMC Model Work Order, LLM 3 W Diesel Fire Pump
- RS010, WMF-630 Weekly RCRA Inspection (roundsheet)
- Senior Supervisory Watch Log and Associated Training Plan
- TPR- 1697, Waste Handling: Approved RCRA Storage
- TPR- 1620, Inventory Management Through Internec Barcode Readers
- TPR-1728, Manual Drum Gas Sampling
- TPR-1572, Operating the Real Time Radioscopic (RTR) System
- TPR- 1584, Drum Venting System
- Closure Packages for previous RWMC ISMS Phase I, Part I OP CRAD Issues (ROP1-2, ROP1-3)
- RWMC self-assessment reports
- RWMC independent assessment reports
- RWMC USQs
- RWMC Safety Analysis information, including relevant SERs, PSARs, SARs, JCOs
- CTR-17, Charter for Senior Maintenance Management Council
- Senior Maintenance Management Council meeting minutes, February 2000
- INEEL Maintenance Performance Measures, October 1999 through February 2000
- RWMC Maintenance and Operations Performance Indicators
- RWMC Plan of the Day

Interviews Conducted

- RWMC Site Area Director
- RWMC Deputy Area Director
- RWMC Nuclear Facility Manager
- RWMC Maintenance Manager
- RWMC Mechanical Foreman
- RWMC Planner
- RWMC Planner Supervisor
- RWMC Facility Mechanic
- RWMC Shift Desk Supervisor
- RWMC Operations Technical Supervisor
- RWMC Radiological Controls Technician
- RWMC Radiological Controls Supervisor
- INEEL Maintenance Manager

Observations

- Plan of the Day (POD) Meeting
- Plan of the Week Meeting
- Job Planning Walkdown of TRO 43 A ACGLF Annual Test
- Operational Safety Board Meeting

- Corrective Action Review Board Meeting
- Subcontractor Well Drilling Work
- Pre-Job Briefing for Preventive Maintenance of Drum Venting System
- Preventive Maintenance of Drum Venting System
- Weekly RCRA Inspection at WMF-630
- Pre-Job Briefing for Preventive Maintenance No-Load Test of TSA-RE Generator
- Preventive Maintenance No-Load Test of TSA-RE Generator
- Pre-Job Briefing for Waste Handling Operations in WMF-610
- Waste Handling Operations in WMF-610
- Pre-Job Briefing for Preventive Maintenance of Diesel Fire Pump
- Preventive Maintenance of Diesel Fire Pump
- Drum Handling at WMF-610
- Facility Excellence Walkdown

Discussion of Results

Procedures and processes are established at RWMC to ensure that work planning is integrated at maintenance and activity work levels. For maintenance activities, STD-101 defined the work planning process. Interviews of planners, supervisors, and craft personnel confirmed knowledge of the STD-101 Work Control Process, including the integration of environmental, safety and health hazards and mitigators into the process. Work order instructions were clearly outlined in the Section X instructions and ESH&QA controls were effectively integrated into the instruction steps. For operational procedures, the MCP-3562 processes for hazard analysis and mitigation has resulted in the incorporation of environmental, safety and health hazards and mitigators into the procedures. ALARA committee recommendations are integrated into procedures as necessary.

The procedures and mechanisms used to confirm facility and operational readiness prior to authorization of work are in place and operational. The scheduling process is utilized to prioritize, coordinate, and allocate resources to various maintenance and operational activities. The Plan of the Day (POD) meeting was effectively utilized to obtain consensus between craft, operations, and support personnel on strategies to meet operational commitments and to satisfy maintenance requirements. The POD is approved by the Facility Manager as the governing document for work authorization. The POD did not include an effective timeframe for which work was authorized. The POD format was revised during the review to include a start and stop date and time. In cases where additional high priority work scope was identified after approval of the Plan of the Day, Facility Manager approval is obtained, however that there is no formal (proceduralized) change control process for POD changes. (ROP1-1)

A review of the Authorization Agreement (AA) at RWMC demonstrated an agreement that was satisfactory in content. The procedures that support the AA process were reviewed on the previous review and found to be satisfactory. However the format of the AA makes it difficult for managers and supervision to determine the operations safety envelope. These documents are all listed in various locations within the document. An appended list of the documents as an attachment would enhance the usefulness to the operations and support personnel at the facility.

The procedures and processes used to gain authorization to conduct operations are established and effective at RWMC. The POD is utilized to schedule and approve operational procedures via the Facility Manager. Timely orders are used to communicate management instructions and expectations to operators for the conduct of daily operations and controlled copies of operational procedures are signed for authorization by the Shift Supervisor.

Procedures and processes are in place to ensure the integration of safety requirements into work performance at RWMC. Work documents for maintenance and operations have integrated ESH&QA components and execution of these documents was observed overall to be satisfactory.

Numerous job evolutions, including pre-job briefings, were observed which exhibited precise compliance with procedures. Workers were knowledgeable of the work requirements and associated hazards and mitigators. Supervisors consistently demonstrated verification of workers qualifications for the tasks to be performed. Pre-job briefings are conducted through the use of a pre-job briefing checklist which is comprehensive. One pre-job briefing observed was noted to be deficient. The pre-job briefing for preventive maintenance of the drum venting system failed to recognize that the maintenance procedure had been revised to include steps that operate the conveyor. These steps were previously included in an operations procedure. As a result, the briefing incorrectly relayed that the maintenance package and the conveyor operations procedure would be utilized for the evolution. Personnel in the briefing who were aware of the revised maintenance procedure did not notify the supervisor until personnel were at the jobsite and work was to begin. The work was subsequently satisfactorily performed in accordance with the maintenance work package.

Subcontractor work (well drilling operations) was observed at RWMC. Subcontractor work is adequately controlled with the use of a subcontractor technical representative (BBWI employee) and is integrated into the work process.

During observation of preventive maintenance of a diesel fire pump at WMF-639, the mechanic failed to sign for completion of a valve line up. The mechanic, without consultation of supervision, subsequently signed the step. This was noted to be an isolated incident. A non-conformance report (NCR) tag was installed on the diesel fuel tank for the fire pump diesel. Information included on NCR tags installed in the field does not provide adequate information to readily enable personnel to understand system status. For example, the tag does not state if the non-conforming condition still allows use of the equipment.

During interviews with several RWMC mechanics, a lack of knowledge was exhibited for verification of valve positioning. Mechanics were not aware of the need to always verify valve positioning in the closed direction. Investigation revealed that training for mechanics is deficient as it does not include valve positioning/valve operation. (ROP1-2)

The performance of a Facility Excellence Walkdown was observed. This program is an excellent integrating mechanism for senior management and facility personnel. (ROP1-4) Material condition and housekeeping of the RWMC complex was exemplary. (ROP1-5) This

condition sets the stage for an improved safety posture and demonstrates a strong commitment to safety by management and workers at RWMC.

Senior Supervisory Watch (SSW) positions are utilized for specific jobs as designated by the Facility Manager. A review of the SSW log revealed that the majority of SSW observations are limited to the status of the observed work, rather than results of mentoring of the crews in topical areas such as Conduct of Operations, Conduct of Maintenance, ISMS, etc. Management has not clearly defined the expectations for SSW duties. (ROP1-3)

Procedures and mechanisms are in place and utilized which ensure adequate performance measures and indicators, including safety performance measures. INEEL Operational Excellence performance measures are utilized at the site level and include topical areas such as worker safety & health, operations, conduct of maintenance, radiological performance, and ISM effectiveness. The performance measures were found prominently displayed in high traffic areas. Several components that comprise the performance measure for maintenance were noted to be in the development stage. The sitewide Senior Maintenance Management Council, consisting of representatives of all site areas, is actively engaged in the refinement of individual components of several maintenance performance measures. Completion of this task is due at the end of the fiscal year. RWMC adequately maintains local performance measures.

A readily available tracking/trending tool for radiological performance of workers does not exist. Some radiological deficiencies, such as posting errors and labeling problems were entered in the ICARE System, but there is no system readily available for management to evaluate progress in performance. A tracking and trending performance tool may become more valuable as the facility changes to production mode in the near future.

Workers were observed actively participating in the work planning process. In the walkdown observed, all personnel necessary to conduct an effective walkdown were present including craft personnel, planner, safety, and primary owner. During the planning walkdown for the ACGLF Annual Test in Building WMF-618, it was observed that no gloves were utilized to handle a substantial extension tool. Development of the work package later revealed that gloves would have been required to handle this type of equipment. Vulnerability for injury exists during planning walkdowns in that personal protective equipment is not specifically designated during this phase of work. Nevertheless, the interaction between planning team members during the observed walkdown produced synergistic enhancements to the job strategy. Workers participate in post-job reviews. For maintenance, a post-job review form is completed individually or collectively as a crew. Numerous post job review forms reviewed provided effective feedback. The forms are manually filled out and later entered into a database and workers receive feedback on actions taken with their comments. The feedback database is not integrated with the Passport System utilized to develop work packages; the vulnerability exists for failing to incorporate valuable comments prior to subsequent issuance of the work package.

The RWMC Corrective Action Review Board (CARB) is effective and comprehensive. The CARB meeting provides facility management a good forum to assess corrective actions, review the status of various audits & assessments, and includes evaluation of DOE complex and sitewide issues such as DNFSB issues.

The RWMC Operations Safety Board was observed to be effective. Several procedures were reviewed in detail with excellent comments. One procedure was rejected for further development. An excellent lessons learned was reviewed by the Board concerning a fire at Brookhaven National Laboratory.

A validation of actions completed to correct issues from the ISMS Phase II, Part I review of RWMC was performed. These issues pertained to the lack of adequate technical direction and integration of hazard mitigation provisions within work order instructions, and a lack of rigor and discipline at RWMC in the execution of operational procedures and work orders as written. Corrective actions to resolve the first issue included the benchmarking of other facility's work orders, the use of a Conduct of Operations consultant, work order instruction revisions, and the performance of self-assessments. Corrective actions for the second issue included INPO independent assessments and subsequent incorporation of recommendations such as procedure revisions, training, self-assessments, and additional supervision. Observations, interviews, and record reviews performed during this ISMS review confirmed closure of these issues.

Conclusion

The objective has been met. RWMC has established and utilized an integrated process to effectively plan, authorize, and execute the identified work for their facilities and activities.

Issue(s)

- No formal (proceduralized) change control process exists for POD changes. (ROP1-1)
- Training for mechanics is deficient, as it does not include valve positioning/valve operation. (ROP1-2)
- Management has not clearly defined the expectations for SSW duties. (ROP1-3)

Strength(s)

- The Facility Excellence Walkdown Program is an effective integrating mechanism. (ROP1-4)
- Material condition and housekeeping of the RWMC complex was exemplary. (ROP1-5)

Inspector _____ JJ Hynes	Team Leader _____ Roy Schepens
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**IDAHO NATIONAL ENGINEERING AND
ENVIRONMENTAL LABORATORY**

**INTEGRATED SAFETY MANAGEMENT SYSTEM
PHASE II, PART II
VERIFICATION**

REVIEW PLAN

March 2000

**Integrated Safety Management
System Phase II, Part II Verification
Team Leader**

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1.0 INTRODUCTION/BACKGROUND

Department of Energy (DOE) Safety Management System Policy 450.4 (P 450.4), defines the expectations that DOE facilities will be operated in accordance with an Integrated Safety Management System (ISMS). The DOE Acquisition Regulations (DEAR, 48 CFR 970) further require that the Head Contracting Authority (Idaho Operations Office [ID]) provide guidance to the contractor as to the expectations for the ISMS Description.

Each site within DOE is to verify that the ISMS Description: 1) fulfills the expectations of the Head Contracting Authority, meets the requirements of the DEAR and the DOE Policy for Safety Management Systems; and 2) that the Description is implemented. The verification reviews are to be conducted in accordance with the protocol for the ISMS Verification process specified by Under Secretary of Energy Memorandum of March 1997, Protocol for Review and Approval of Documented Safety Management System Descriptions Associated with Defense Nuclear Facilities; and DOE G 450.4-1, Integrated Safety Management System Guide. As described in the Verification Protocol and the ISMS Guide, the ISMS Verification is to be conducted in two phases. The ISMS Verification Phase I verified the adequacy of the description and the ISMS Verification Phase II verifies implementation of the ISMS.

The ID Manager guidance and expectations for the Idaho National Engineering and Environmental Laboratory (INEEL) were provided to the previous Contractor for the establishment of an ISM System at INEEL.

The ISMS established by the previous Contractor was evaluated by an ISMS Verification Phase I (ISMSV-I) completed in the spring of 1999. An ISMSV Phase II for the first five selected INEEL Facilities was completed in September 1999, immediately prior to the change of INEEL Contractors. By DOE-ID direction, remaining INEEL facilities, which had not yet undergone an ISMSV-II, are to be evaluated this year. This guidance is included within the INEEL Contractor's current contract and DOE-ID directives and guidance.

The results, corrective actions, and lessons learned from the previous ISMSV-I and II were to be included and integrated into INEEL operations. This ISMSV-II Team has been formed to evaluate the implementation of INEEL ISMS at [two](#) additional facilities. The Team will utilize the results and lessons learned in the conduct of the previous ISMSV-I and II evaluations for the purpose of this evaluation. This Review Plan (RP) is for this ISMSV-II, Part II.

The ID Manager appointed Roy Schepens from DOE-SR as the Team Leader for this ISMS Verification Phase II, Part II and specified the scope of this review and the desired deliverables. This RP defines the review and procedures that will be followed to conduct the review for the ID Manager.

2.0 PURPOSE

The purpose for the INEEL ISMS Verification Phase II, Part II is to provide an assessment to the ID Manager concerning the effectiveness of the implementation of ISMS for facilities at INEEL, which have not yet undergone an ISMSV-II, and to delineate areas in which implementation does not conform to the approved ISMS Description. In assessing the adequacy of the ISMS implementation, the ISMS Verification Phase II will consider the results of previous reviews such as the ISMS Verification Phase I and Phase II. The final report of this ISMSV- Phase II, Part II will discuss the progress and effectiveness of the implementation efforts in these identified Site Area/facilities.

3.0 SCOPE

The scope of the INEEL ISMS Verification Phase II will include the ISMS for the following INEEL Site Area/facilities and activities managed and operated by BBWI under Contract DE-AC07-99ID13727 including the integration with the ID: all facilities at the Specific Manufacturing Complex (SMC); Idaho Falls Facilities (IFF) not covered during the September 1999 Phase II review; and the Radioactive Waste Management Complex (RWMC), reverification of the Operations objective. Other INEEL Site Areas and facilities are excluded from the scope of this review. More specific information on the facilities which are within the scope of the review is included in Section 7.

The ISMS Verification Phase II will evaluate the adequacy of the ISMS implementation when compared to the approved ISMS Description. In assessing the adequacy of the ISMS implementation, the ISMS Verification Phase II will consider how the described site-wide corporate system containing safety requirements is coordinated and integrated “downward” into the individual facility and work processes. This review will also assess the integration of actions for the resolution of safety items identified by DOE-EH into the contractor and DOE implementation of their ISMS. At the facility or process level, the mechanisms, which identify, evaluate, control and assess individual work items will be assessed as key indicators of the adequacy of the implementation. The review will assess the adequacy of the programmatic documentation at the facility level. Integration between the Contractor and DOE-ID as well as the integration within the Contractor’s organization from the site-wide to the process specific implementation will also be reviewed. By reviewing supporting documents, interviewing individuals within the facilities, and observing the accomplishment of selected work processes, the ISMS Verification Phase II will be able to draw conclusions as to the adequacy of the ISMS implementation. It is important to note that the complete integration of environments

including waste minimization and pollution prevention into the ISM system is important to the success of that system. The scope of the review at INEEL will include all eight ISMS Core Expectations (Appendix II) included in the ISMS Verification Team Leader's Handbook, which will result in evaluation of the core functions and guiding principles for Integrated Safety Management as defined in the DOE P 450.4.

4.0 PREREQUISITES

The significant prerequisite for the ISMS Verification Phase II is that the INEEL ISMS Description Document be implemented in the selected Site Area/facilities, or that implementation plans be in place with significant progress having been made. Additional prerequisites to the ISMS Verification Phase II include: appointment of the Team Leader, identification and approval of the team by the ID Manager, development of the RP, Team Leader approval of the RP, and confirmation that team member individual knowledge and understanding of the site, Integrated Safety Management, and the ISMS Description being implemented are adequate to effectively conduct the review.

5.0 OVERALL APPROACH

The ISMS Verification Phase II Team will review the ISMS implementation in the selected Site Area/facilities at INEEL. The Verification Team will evaluate the progress and effectiveness of the implementation efforts against the guiding principles and core functions defined in DOE P 450.4. Based on this assessment, the ISMS Verification Phase II Team will draw conclusions and make recommendations to the ID Manager as to whether the ISMS implementation is achieving the overall objective of Integrated Safety Management which is described as follows:

"The Department and contractors must systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment. This is to be accomplished through effective integration of safety management into all facets of work planning and execution. In other words, the overall management of safety functions and activities becomes an integral part of mission accomplishment."

The ISMS Verification Phase II will be conducted using sub-teams as defined in more detail under Section 7.

5.1 Sequence of Activities

The first step in the ISMS Verification process is to provide training and interaction among the team members to ensure an adequate understanding of the DOE ISMS Policy expectations, the specific INEEL ISMS Description, and the plan and strategy for the review. As a final action of this initial effort, the team will complete preparation of the Criteria and Review Approach Documents (CRADs) which will guide the review. The

final CRADs are attached as Appendix II of this RP. The indoctrination period of about four days, including CRAD development and some initial briefings will be conducted at the INEEL at least a week or two prior to the start of the ISMS Verification Phase II. This initial period will be utilized by DOE-ID and the Contractor to provide ISMS presentations and briefings to update the Verification Team on implementation progress since the previous ISMS verifications. The team member's Biographies are included as Appendix I of the RP.

The ISMS Verification Phase II Part II review will be conducted during a one-week period following preparation of the RP, development of the CRADs, and completion of the team indoctrination. The review will consist of completing any necessary Site Area/facility specific briefings from the Contractor and DOE-ID to the team during the first two days, as well as interviews, observations, and document reviews. Any additional actions that may be necessary to support review and assessment of the supporting program and process documents, and implementation will be identified as the review progresses. The final three days of the week will be used to complete the interviews, observations, and documentation reviews, if necessary, as well as the completion of the Assessment Forms, the preparation of the Final Report and any related activities. A report will be issued at the completion of the week. Additional details on the review may be found in Section 7.

During the third and fourth days of the week of the verification review, the team members will complete their evaluation of the criteria in the individual CRADs that will support conclusions as to whether the individual objectives have been met. The evaluation of the criteria will result from the presentations coupled with the interviews, observations, and documentation reviews. An important input to all efforts will be the observations and discussions with individuals within the facilities who explain and defend their ISMS at their individual levels of responsibility. The record of the evaluation will be the Assessment Form. An Assessment Form will be prepared for each Objective in the CRADs and will document the basis for the conclusions reached concerning the objective and criteria. Each Assessment Form will conclude with a set of numbered issues or observations which will be rolled up to "Opportunities for Improvement" in the Executive Summary of the Final Report. Issues identified during the review of the individual CRAD which warrant the attention of the ID Manager or senior Contractor management will be clearly identified within the Assessment Form. In addition, good ISMS practices and strengths will be identified as "Noteworthy Practices."

Each CRAD is intended to guide the evaluation of the adequacy of the ISMS implementation. Detailed instructions for completing the Assessment Form will be provided to the ISMS Verification Phase II Team prior to and during the review.

A Final Report will be prepared which will describe the results of the ISMS Verification Phase II. The report will provide an assessment of the effectiveness of ISMS implementation to the ID Manager and delineate areas, if any, in which implementation

does not conform to the approved ISMS Description. The report will provide the conclusions reached by the review team as to the status of implementation of ISMS in the selected Site Area/facilities. The contents of the report are described in Section 9.

6.0 PREPARATIONS

Preparations for the ISMS Verification Phase II will focus on two areas. The first is intended to prepare the team to conduct the review and finalize the RP that will guide the conduct of the review. The second effort is to assist the Contractor and DOE-ID in gaining an understanding of the review process in order that they may most effectively present their ISMS implementation to the ISMS Verification Phase II Team.

6.1 ISMS Verification Phase II Team Preparations

Efforts to prepare the team to conduct the ISMS Verification Phase II will include ensuring completion of training on the relevant DEAR clauses as discussed in Section 5.1. There will also be a discussion on the strategy and methodology for the review. This portion will include a discussion of the strategy and logic by which the CRADs and sub-teams were developed. Also, the discussion will include thoughts on tailoring methods for the review to increase confidence that the review results will reflect the implementation of the INEEL ISMS. Finally, the team will receive briefings and discussions to ensure an understanding of the progress in implementation since approval of the ISMS Description by the ID Manager, and the initial ISMSV-Phase II. The briefings on the ISMS will include discussions on the ID counterpart elements and integration of ID functions with the INEEL ISMS. The review will verify that the responsibilities, activities and processes of the ID staff are appropriately described and integrated with the INEEL ISMS at the facility and work process levels.

6.2 Contractor and DOE-ID Preparations

The responsible Contractor and ID Managers will present their implementation of ISMS, consistent with the approved Description document, to the team so that a basis for interviews, observations and further document reviews can be formed. It is important, therefore, that the individual Managers have an understanding of the expectations of the ISMS Verification Phase II and have an understanding of the ID expectations for ISMS implementation. In order to enhance the validity of this premise, efforts will be undertaken by the ISMS Verification Phase II Team leadership to enhance the understanding of the Contractor's Managers of the expectation of the ISMSV- II Team.

The briefings will consist of Contractor and ID making presentations to the team to describe how the approved ISMS Description has been implemented consistent with DOE P 450.4, the ISMS DEAR clauses, and the requirements of the ID Manager. The briefings should include identification and a brief description of supporting program and process documents at the Site Area/facility level, as well as any self-identified gaps in the

ISMS implementation plans. These presentations should also describe the integration of safety management between the Contractor ID, and within the Contractor organization at the Site Area/facility level. At the conclusion of the presentations, the ISMS Verification Phase II Team will review documentation, interview selected personnel, observe work processes, and complete the other necessary actions to support the review.

7.0 PROCESS FOR ISMS REVIEW

As described in Section 5 above, the review will be conducted using the CRADs. The CRADs for the review are included as Appendix II of the RP. The CRADs are identified by functional area and they will be used by each of the two sub-teams to form a common basis for the review. The functional areas are Hazards Identification and Standards Selection (HAZ), Management (MG), Operations (OP), and DOE-ID (DOE). The ISMS Verification Phase II, Part II sub-teams are:

Specific Manufacturing Complex (SMC)
Idaho Falls Facilities (IFF)

The ISMS Verification Phase II Team will review ISMS implementation at these additional sites as part of the phased approach for verifications for the remaining Site Area/facilities that have implemented the approved ISMS Description at INEEL. Additionally, corrective actions from the Radioactive Waste Management Complex ISMSV-II of September 1999 will be evaluated. Specifically, a reverification of the Operations CRAD will be conducted at the Radioactive Waste Management Complex Site Area.

The sub-teams will assess the integration of actions, obligations, and requirements for the resolution of safety items identified by DOE-EH into the contractor implementation of their ISMS. Similarly, the effective integration of these implementation requirements into the DOE-ID implementation will be assessed.

The SMC sub-team will review the ISMS implementation for facilities within the Specific Manufacturing Complex.

The IFF sub-team will review the ISMS implementation for facilities within the Idaho Falls Facilities. Within the scope of the review at IFF, the sub-team will assess ISMS implementation at the Leased Labs, comprised of the North Holmes Laboratory (NHL), North Yellowstone Complex Laboratories (NYCL), May Street North Laboratory, May Street South Laboratory, and North Boulevard Complex Annex (NBCA). Additionally, the IFF review will focus on the support services' implementation of ISM.

The MG CRADs will include a review of the M&O contractor transition from LMITCO to Bechtel BWXT Idaho, LLC with particular emphasis on maintenance of ISMS methodologies previously reviewed and approved during the ISMS Verification Phase I.

The review of the individual CRADs will assess the status of the ISMS implementation and will support the Verification Phase II Team's conclusions and recommendations with regard to work being done safely and in accordance with the principles and functions of DOE P 450.4. The results from these activities will be included in the final report.

8.0 ADMINISTRATION

8.1 Meetings and Presentations

Part one of the review will include presentations by the Contractor and ID to the ISMS Verification Phase II Team. The purpose for the presentations will be to provide an opportunity for the team to be provided a status of the implementation progress since the ISMS Description was approved. The presentations will provide an opportunity to describe the manner in which the elements of ISM described in the various programs are implemented at the Site Area/facilities level resulting in an ISMS which fulfills the expectations for DOE P 450.4 and the DEAR requirements. The ISMS Verification Phase II Team will utilize the information provided during the presentations as a basis to proceed with the verification that the criteria and the objectives in the individual CRAD are met. Additional interviews, record reviews observations and other activities at the Site Area/facilities level will form the majority of the review effort.

The INEEL ISMS Verification Phase II will be an open process with the goal of maximizing the opportunity to achieve a full understanding of the ISMS implementation. This in turn will result in an accurate assessment of the progress and status of implementation and a recommendation to the ID Manager. In order to achieve the level of openness and coordination which is desired, the team will meet daily to discuss observations and issues. Site personnel are invited, in limited numbers, to attend these team meetings as observers. The Team Leader and Advisor will meet as necessary with senior Contractor and ID management to ensure that they are fully informed of the progress and issues during this ISMS Verification Phase II.

Following the review portion of the ISMS Verification Phase II, the Team Leader will conduct an outbrief with the Contractor and ID Managers as well as appropriate Site Area/facilities personnel. The briefing will include the results of the review, the basis for the ISMS evaluation that will be made to the ID Manager concerning ISMS implementation and a summary of strengths or issues that arose during the review.

8.2 Documentation of the ISMS Verification Phase II

The ISMS Verification Phase II will be guided by the criteria in the CRADs. The documentation will be structured in a manner to show that the elements of the CRADs were evaluated and that the objectives were met or what aspects of the objectives were found to be deficient. The purpose of the documentation is to provide information concerning details of the review to individuals who did not witness the review.

In order that the schedule for the ISMS Verification Phase II is maintained and that the report is complete prior to dissolution of the team, each team member must document his work as it is conducted. This means that daily inputs to the Assessment Form should be planned. Each sub-team leader will be provided with a preliminary Assessment Form containing the objective and criteria for each CRAD. In the event that issues of noteworthy or questionable practices are identified, they will be documented within the Assessment Form. If the final report to the ID Manager recommends actions for the Contractor or for ID, those actions should be supported by detailed information on the Assessment Form. The team members are responsible for ensuring that the Assessment Forms do not contain classified or Unclassified Controlled Nuclear Information (UCNI).

The lessons learned from the INEEL ISMS Verification Phase II are particularly important for future reviews. Team members will draft lessons learned inputs and provide those inputs to the Team Leader. Those inputs will be used for a composite lessons learned for future use.

8.3 Team Composition and Organization

The ISMS Verification Phase II Team was formed using members from INEEL, as well as personnel experienced in conducting ISMSV reviews at other DOE Sites in the Complex. Since the focus of the Phase II Verification is on implementation, the Phase II Team membership was filled out with other INEEL individuals who are familiar with the conduct of work at the Site Areas and in the INEEL facilities. The ISMS Verification Phase II Team is organized into sub-teams using an integrated set of CRADs. Sub-team leaders are responsible for ensuring that all CRADs assigned are fully evaluated and that the appropriate documentation is prepared. The Biographies and Qualification Summaries for each team member are in Appendix I and will be retained with the records of the ISMS Verification Phase II.

9.0 FINAL REPORT FORMAT

At the completion of the review, the team will prepare a report. The report will include an assessment to the ID Manager concerning the effectiveness of the implementation of ISMS and will delineate areas, if any, in which implementation does not conform to DOE P 450.4, the ISMS DEAR clauses, and the approved ISMS Description. The report will also provide an assessment of the adequacy of supporting program and process

documents, and implementation at the Site Area/facilities level. The report will discuss a path forward associated with verification of the completion of implementation actions at other INEEL Site Area/facilities and/or verification of corrective actions identified during the ISMS Verification Phase II, Part II.

The report of the ISMS Verification Phase II, Part II will consist of the following sections that fully describe the review, provide the necessary recommendations, and provide information necessary to support the recommendations. Team members should not include any classified or UCNI material in the report. The Team Leader will ensure that the final report is appropriately controlled and reviewed for classified information or UCNI prior to issuance.

TITLE PAGE - the page that states the Site and the dates of the review.

SIGNATURE PAGE - the page used by the Team Leader to promulgate the final version of the report.

TABLE OF CONTENTS - identifies all sections and subsections of the report, illustrations, tables, charts, figures, and appendices.

EXECUTIVE SUMMARY - provides an overview of the results of the ISMS Verification Phase II including a summary of the recommendations that result from the review. The executive summary will identify opportunities for improvement (issues) as well as noteworthy practices (strengths) identified during the review.

INTRODUCTION - includes the overall objectives of the evaluation; the review process and methodologies used in the review; and the team composition.

PURPOSE - includes the purpose of the ISMS Verification Phase II.

SCOPE - includes the scope of the ISMS Verification Phase II.

OVERALL APPROACH - restates (with any necessary modifications) the approach followed during the ISMS Verification Phase II and delineated by the RP.

ASSESSMENT OF INEEL ISMS - provides a summary discussion of the overall results of the evaluation. This section will include an integrated summary of the information developed by each sub-team including the opportunities for improvement (issues) as well as noteworthy practices (strengths) identified during the review. In addition, this section will provide details of the review, which are necessary to support the recommendation to the ID Manager concerning CONTRACTOR ISMS implementation. This section will also provide support for any recommendations or observations associated with ID. The report will also discuss the observations and conclusions of the team regarding the adequacy of supporting program and process

documents at the Site Area/facilities level. Finally, any deviations from this RP will be discussed in the report.

CONCLUSIONS AND RECOMMENDATION - will address the adequacy of the ISMS implementation with an assessment to the ID Manager. It will further provide information about the path forward associated with verification of the completion of implementation actions at other INEEL Site Area/facilities and/or verification of corrective actions identified during the ISMS Verification Phase II, Part II.

LESSONS LEARNED - will discuss lessons learned associated with the ISMS Verification Phase II, Part II process as well as with the development and implementation of an ISMS.

VOLUME II - will include the Assessment Forms and the Review Plan (including the CRADs).

10.0 SCHEDULE

For planning purposes, the projected schedule for this ISMS Verification Phase II, Part II at INEEL is as follows:

February 28 through March 3, 2000: Team receives site-specific training, discusses the verification process, and completes their sub-team planning and development of the CRADs. Team receives presentations from ID and the Contractor on the implementation progress since the ISMS Description was approved, with the incorporation of the results, corrective actions, and lessons learned from the previous ISMSV Phase II completed in 1999.

March 20 -25, 2000: Team performs the review and verification of ISMS implementation. Perform the review with interviews, observations, document reviews, evaluation, report writing and closeout of the ISMS Verification Phase II review.

APPENDICES

Appendix I Team Member Biographies

Appendix II Criteria and Review Approach Document

Appendix III ID Manager Appointing Memorandum

Appendix I

Team Member Biographies

TEAM LEADER

Roy Schepens

SENIOR ADVISOR

Wayne Rickman

RWMC (OPS revisit)

JJ Hynes

IFF

MG

Richard Dickson

HAZ

Richard Caummisar

OPS

Andy Jones

SMC

MG

Richard Kauffman

HAZ

Bob Boston

OPS

Bob Seal

DOE

Bob Baeder

Team Biographies

Robert Baeder is the Senior Nuclear Engineer and the Director of Energy Services with XL Associates, Inc. supporting the Department of Energy (DOE) for Defense Programs (DP) and Environmental Management (EM). He has a B.S. in Naval Engineering from the United States Naval Academy, and Masters' Degrees in Naval Architecture and Marine Engineering from the Massachusetts Institute of Technology. He is pursuing his Ph.D. in Management. Mr. Baeder has more than 24 years of naval experience as a nuclear submarine officer, earning qualification as Engineer and for Command. His experience in the Navy Nuclear Power Program includes tours as the Engineer Officer for a submarine completing overhaul, as the Executive Officer during a reactor refueling submarine overhaul, and section for Nuclear Submarine Command. Additionally, he served as the Associate and Acting Chairman of Mechanical Engineering at the United States Naval Academy and taught thermodynamics, fluid mechanics, and nuclear engineering. He also served for the Chief of Naval Operations in Program Management for the Navy's Ashore and Afloat Command, Control and Communications Systems (C3). As a result of his significant military experience in nuclear power and solid academic background, Mr. Baeder brings extensive expertise in nuclear and reactor plant operations and management, thermodynamic/fluid mechanics engineering, maintenance, material management, training and education and engineering design. Mr. Baeder retired from the Navy in 1994 and immediately joined XL Associates, Inc. He has gained more than five and one-half years of direct experience in DOE operations, serving for Operational Readiness Reviews (ORRs), Readiness Assessments (RAs), Standards and Requirements Implementation, Performance Assessments and Self-Assessment, implementation and training for the DOE Defense Program Core Technical Group, in DOE DP programs in response to Defense Nuclear Facility Safety Board recommendations, in the DOE Integrated Safety Management System (ISMS) implementation and Verification (ISMSV), and most recently as a Senior Mentor for Operations/Environment/Safety/Health for the Resumption of the Plutonium Facility Operations at the Lawrence Livermore National Laboratory (LLNL) for the past eighteen months. He has completed more than thirty-six major assessments and taskings since 1994.

In these capacities he has also served on, or is now preparing for, more than twenty-five major ORRs/RAs and Assessments. These taskings included the startup of new facilities and processes (such as the SRS ITP, SRS DWPF, and NTS DAF), the resumption of activities (such as the OR Y-12, SRS H and F Canyon Operations, and Pantex), and the completion and decommissioning of operations (such as the OR K-12 DRP, the RFETS Building 371 Operation, and the ORNL Uranium Storage Facility Operations). These taskings include among others: the Savannah River Site (SRS) Replacement Tritium Facility Validation and Verification, the SRS In-Tank Precipitation, the Oak Ridge Y-12 Receipt, Storage, and Shipment Restart Readiness Assessment, the SRS F-Canyon Phase II Restart ORR, the SRS Defense Waste Processing Facility ORR, the Oak Ridge K-25 Deposit Removal Project ORR, the SRS Consolidated Incineration Facility ORR, the Rocky Flats Building 371 ORR, the SRS H-Canyon ORR, the SRS ISMS Verification, the SRS HB-Line ORR, the Oak Ridge Y-12 RSS and DAS ORRs, the Nevada Test Site Combined Device Assembly Facility ORR, the SRS HB Line ORR, the EUO Phase A1 and A2 ORRs, the Pantex Building 12-116 ORR, the Y-12 Plant ISMSV, the Hanford W-320 Tank Sluicing Project ORR, the Hanford Plutonium Finishing Plant (PFP) ORR, the

Idaho National Engineering and Environmental Laboratory (INEEL) ISMSV Phase I (ISMSV-I) and ISMSV Phase II (ISMSV-II), and the SRS K-Area Material Storage (KAMS) ORR. He is currently also serving on the teams for the Oak Ridge National Laboratory (ORNL) Uranium Storage Facility ORR, and the INEEL ISMSV Phase II (ISMSV-II). Usually, he has evaluated the areas of Operations, Procedures, or Management, but he has also reviewed Configuration Management, DOE Federal Management, Engineering Support, Maintenance, Quality Assurance, Safety, Safety Envelope, Qualification and Training, Waste Management, and has assisted Team Leaders and Senior Advisors in these capacities. He has also assisted facilities in their preparation for operations including at the Oak Ridge National Laboratory (ORNL) site. Mr. Baeder was one of the senior Mentors, from the start to the completion, for the Lawrence Livermore National Laboratory (LLNL) Building 332 Plutonium Facility Activity Resumption Process (ARP). He continued his efforts as a senior Mentor for the B332 ISMS Implementation and their ISMSV-I and II. Additionally, he is now a senior advisor for the current Oak Ridge Y-12 Enriched Uranium Operations (EUO) restart and resumption efforts. He is preparing for additional tasking in ORRs, ISMS, and Mentoring now.

Robert Boston has over twenty years of experience in the nuclear industry. Mr. Boston is a Certified Health Physicist and holds Masters and Bachelors degrees in Nuclear Engineering from Idaho State University. He is currently the Nuclear Safety and Readiness Review Technical Lead for the Department of Energy, Idaho. Mr. Boston has held positions as a member of the INEEL Independent Assessment Group, as the Restart Manager for the Nuclear Material Inspection and Storage Facility (NMIS) at the INEEL, as the Environmental Health and Safety/Engineering Interface for a DOE subcontractor, a Nuclear Criticality Safety Engineer, Reactor Supervisor/Senior reactor Operator at a Nuclear Regulatory Commission licensed reactor, and senior positions in the U.S. Navy Nuclear Power Program. At the INEEL Independent Assessment Group he participated in numerous assessments, specializing in Conduct of Operations and Hazards Analysis. While the NMIS Restart Manager he ensured that the NMIS Facility conducted a successful recovery from a contractor directed shutdown. As Environmental Health and Safety/Engineering Interface Mr. Boston ensured that all ES&H requirements were carried through to the engineering design of a major remediation project. As a Nuclear Criticality Safety Engineer Mr. Boston has been deeply involved with the safety analysis of numerous facilities. Finally, Mr. Boston was involved in numerous successful Operational Reactor Safeguards Examinations (ORSE) while a senior official in the U.S. Navy, and to date is the only U.S. Naval Reservist to have participated in an ORSE work-up.

Richard Caummisar is a Safety Engineer with DOE's Idaho Operation Office in the Office of Technical Support where he provides technical oversight of the INEEL M&O contractor's safety program. Mr. Caummisar has 20 years of experience in the safety and health field and is a Certified Safety Professional. He holds a M. S. in Industrial Safety for the University of Idaho and a B. S. in Engineering Technology from Memphis State University.

Previous employment was with MDM/Lamb, Inc. as a support contractor to DOE's Amarillo Area Office (AAO) at the Pantex Plant. During the four years at the Pantex Plant, Mr. Caummisar supported the Operational Safety Branch in the areas of industrial safety, fire protection and industrial hygiene. He was a team member on numerous weapons programs

readiness reviews. Also, while working for the AAO, he was a member of the pre-onsite VPP evaluation team when the Pantex Plant applied for VPP Star Status. Mr. Caummisar also worked at the INEL with EG&G, Idaho for six years as an Industrial Safety Engineer in the Environmental Restoration and Waste Management Department. While employed by EG&G, Idaho, he was a team member of the special tiger team commissioned by Senator John Glenn (D – Ohio) to investigate safety concerns at the Portsmouth Gaseous Diffusion Plant in 1991. He also served on an Independent Safety Review Committee for the review of the department's Safety Analysis Reports and Unreviewed Safety Question Determinations. The balance of his 20 years industrial safety and health experience was in heavy steel plate fabrication with Newport News Shipbuilding and Chicago Bridge and Iron. These employers provided industrial safety/hazard recognition experience in a variety of work environments including commercial nuclear plants, oil refineries, submarine, aircraft carrier construction and liquefied natural gas manufacturing plants.

Richard Dickson is a Certified Health Physicist with 24 years of experience at the Department of Energy in Idaho. He earned a Bachelor of Science Degree in Physics from the University of Southern Colorado in 1974, and a Master of Science Degree in Radiation Protection and Radioecology from the School of Veterinary Medicine at Colorado State University in 1975. From 1975 through 1985, he worked as a health physicist at the Radiological and Environmental Sciences Laboratory. In this capacity he assisted with the monitoring and evaluation of radiological and non-radiological effluents released to the environment by facilities at the Idaho National Environmental and Engineering Laboratory (INEEL), prepared assessments of internal and external doses to occupational workers, and co-authored three journal articles on radioecology. In 1985, Mr. Dickson transferred to the Occupational Safety Division and became responsible for assessment and oversight of occupational radiation protection programs at nuclear facilities at the INEEL, West Valley Project Office in New York and the Grand Junction Project Office in Colorado. From 1988 through 1991, Mr. Dickson was a member of the Idaho National Engineering Laboratory Historical Dose Evaluation Task Group. The Task Group prepared *the Idaho National Engineering Laboratory Historical Dose Evaluation* report that compiled, documented and evaluated radiation doses as a result of radiological effluents from routine operations, tests, experiments, and accidents from 1952 through 1989. In January of 1997, Mr. Dickson received the Secretary's Gold Award for participation on the Human Radiation Experiments Team. This team identified and made records of human radiation experiments conducted by the department available to the public. During the last 4 years, Mr. Dickson has taken a leadership role in the conduct of Environment, Safety, Health and Quality Assurance (ESH&QA) management systems assessments at the INEEL. These included assessments of the effectiveness of the ESH&QA oversight program, work control program, safety authorization basis, and PAAA Act Implementation. Mr. Dickson served as the Acting Director of the Policy and Assurance Division during fiscal year 1999. Mr. Dickson completed the DOE Technical Qualification Program in the functional area of radiation protection in 1998. He completed a NQA-1 Lead Auditor Training Course in 1997 and an ISO 14000 Advanced Environmental Management Systems Auditors Course in 1998. He was a member of the INEEL ISMS Phase I and Phase II Verification Teams, and the RESL Phase II Verification Team.

J.J. Hynes is the Senior Facility Representative for H-Canyon in the Nuclear Materials Stabilization Division at Savannah River Site. He holds a B.S. in Biology with a minor in Health

Physics and has 18 years of experience in the nuclear field. Prior to coming on board with DOE-SR, Mr. Hynes was employed at Charleston Naval Shipyard where he served in the Nuclear Engineering Department as a Shift Refueling Engineer, Assistant Chief Refueling Engineer, and Chief Refueling Engineer. Mr. Hynes assumed his present position with DOE in June 1991 and has previously been assigned as a Facility Representative in F-Area. Most recently, Mr. Hynes served as team member for the Phase I and II ISMS Verification at Wackenhut Services, Inc. at SRS. Additionally, Mr. Hynes has been a team leader and team member for several Readiness Assessment Teams for Nuclear Materials Stabilization facilities at SRS. Mr. Hynes is a member of the DOE-SR Integrated Safety Management System Description working group and is currently the Chairman of the DOE-SR Facility Representative Council.

Charles A. Jones has been with the Department of Energy, Idaho Operations Office since 1987. With the Department of Energy, he completed 93-3 qualification for Facility Representative and facility specific qualification as a Facility Representative at the Advanced Test Reactor/Test Reactor Area. From 1995 to 1997, Mr. Jones worked in the Occupational Safety Division of the Idaho Operations Office in the areas of general industry and construction safety. During that time he completed 93-3 qualification in Occupational Safety. Since 1987, Mr. Jones has served as either the team leader or a team member for various assessments including the Type A accident investigation of the CO₂ accident at the Test Reactor Area, four Operational Readiness Reviews for various facility restarts at the INTEC, full and partial Conduct of Operations assessments at all INEEL facilities, and many others. Mr. Jones has completed various training courses in such areas as OSHA, criticality safety, conduct of operations, environmental compliance, accident investigation and radiological controls. Prior to the Department of Energy, Mr. Jones served twenty years in the Naval Nuclear Power Program. In this capacity, Mr. Jones was responsible for all aspects of nuclear power plant operations, maintenance, and training in both operating submarines and nuclear prototype reactors. Mr. Jones was qualified as Engineering Officer of the Watch and Engineering Watch Supervisor.

Richard Kauffman is an Environmental Engineer for DOE-Idaho working in the areas of water and TSCA. He has just completed a detail assignment as the Deputy to the RWMC Facility Director where his duties included oversight of ISMS management systems. He holds a Bachelor of Science degree in Mechanical Engineering, and is a Registered Environmental Manager. Mr. Kauffman previously worked for the Naval Nuclear Propulsion Program at Mare Island Naval Shipyard. His responsibilities there included, monitoring and evaluation of radiological and non-radiological effluents released to the environment, preparing assessments of internal and external doses to occupational workers, participating in emergency preparedness, directing the processing of radioactive liquid wastes, and establishing the mixed waste management program at the Naval Shipyard. At DOE-Idaho, Mr. Kauffman completed 93-3 qualification in the areas of Facility Representative and Environmental Compliance. He has been a qualified Facility Representative at the Waste Reduction Operations Complex and the Central Facilities Area, a INEEL-wide Environmental Compliance Specialist, and oversaw the development of the Test Reactor Area environmental management system. He has completed training in various areas such as OSHA, conduct of operations, environmental compliance, radiological control, project management and supervision, and the ISO 14000 Advanced Environmental Management Systems Auditors

course. Mr. Kauffman has been involved in various readiness, compliance, and management system assessments.

Wayne Rickman is presently employed as a Principal Analyst and Senior Vice President of Nuclear Operations for Sonalysts, Inc. He has had more than 30 years of operational experience in the Naval Nuclear Propulsion (submarine) Program, achieving the rank of Rear Admiral (RADM).

Mr. Rickman in his current assignment has supported the Department of Energy (DOE) in the areas of Training and Qualification and Operational Readiness Reviews (ORRs). He recently served as a Senior Advisor to a select DOE Training and Qualification survey team in support of the Implementation Plan for Defense Nuclear Facilities Safety Board (DNFSB) Recommendations 92-7 and 93-3. Mr. Rickman has served as senior nuclear advisor for the ORRs for Building 707 at Rocky Flats, F-Canyon, FB-Line, Defense Waste Processing Facility, H-Canyon, and the Replacement Tritium Facility at Savannah River Site (SRS). Additionally, he served as a Senior Nuclear Advisor as well as a training and qualification technical expert for HB-Line at SRS. During the ORR for Building 559 at Rocky Flats, Mr. Rickman participated as the training and management systems group leader. He was involved in the internal briefings within DOE and to the DNFSB and participated in the many public hearings concerning ORRs for those facilities. Additionally, Mr. Rickman was the technical director for the DOE certification program for K- Reactor operators as part of the K-Reactor Restart Program at SRS.

While in the Navy, RADM Rickman was involved in the training and qualification of personnel in the Naval Nuclear Propulsion and the Naval Nuclear Weapons Programs. He served as commanding officer of two submarines, including a Trident submarine with the Navy's largest and newest submerged power reactor and the Trident C-4 weapons system. In addition, Mr. Rickman served as a Deputy Commander for training for a submarine squadron, where he directed, monitored, and evaluated the training and qualification of submarine crews in operations of nuclear reactors and nuclear weapons. He also served as special assistant to the Director, Naval Nuclear Propulsion Program, where he was responsible for the selection, qualification, training, and assignment of personnel who supervise, operate, and maintain naval nuclear propulsion plants. Mr. Rickman's last assignment as a Rear Admiral was the Flag Officer responsible for training in the Atlantic fleet. He was responsible for 14 diverse training organizations with 2,000 instructors in more than 650 courses and a throughput of 175,000 students per year. He was the INEEL Phase I Verification Team Senior Advisor.

Roy Schepens (Team Leader) was certified as a ISMS Team Leader with training at DOE Headquarters in early 1997. He participated in the ISMS Verification Phase I and Phase II at SRS. Mr. Schepens has been an ORR Team Leader for the startup of several facilities, most recently the startup of the Waste Isolation Plant Project (WIPP) in Carlsbad, NM. Mr. Schepens was the Team Leader for the ISMS Review at WIPP and for the Defense Waste Processing Facility at SRS, and Wackenhut Services, Inc. at SRS.

Mr. Schepens is the Assistant Manager for High Level Waste at the DOE Savannah River Operations Office (SR). Mr. Schepens has 25 years of nuclear operations experience including

Navy, Commercial and DOE facilities. In his current position he directs hand-on oversight of contractor nuclear activities. Mr. Schepens is responsible for all aspects of nuclear operations for High Level Waste including construction, startup testing, nuclear waste processing, nuclear safety, industrial safety, scheduling, budget management and interface with external oversight organizations such as the Defense Nuclear Facilities Safety Board and the Nuclear Regulatory Commission. Mr. Schepens most significant accomplishment as the Deputy Assistant Manager for High Level Waste is the successful startup and operation of the \$2.5 billion dollar Defense Waste Processing Facility.

Mr. Schepens positions at SR have also included Director of Reactor Operations Division and Director of High Level Waste Operations. In his position as Director of Reactor Operations, he successfully accomplished all restart activities associated with K Reactor. Following the successful startup of the reactor, Mr. Schepens accepted a position as Director of Operations for High Level Waste. In this position he was responsible for the successful construction, testing and startup approval process for the In Tank Processing facility which reduces liquid radioactive waste volume through a de-watering process. He was also responsible for the construction and startup testing of the Defense Waste Processing Facility, which stabilizes radioactive waste through a vitrification process. Mr. Schepens management expertise has resulted in the successful startup and operations of major DOE nuclear facilities including K-Reactor, In-Tank Processing Facility and Defense Waste Process Facility.

Mr. Schepens experience also includes 4 years with the NRC as resident inspector at the Vogtle Electric Generation Plant during construction, pre-operational testing, licensing, startup testing, low power testing, and full power operation of Unit No. 1. He was a project manager for General Electric and managed various construction, startup, and maintenance/refueling projects for commercial nuclear and fossil plants. He entered the nuclear field as an engineer at Ingalls Shipbuilding. In this position he was responsible for evaluating plant systems and preparing written instructions for completion of plant modifications and corrective actions on Navy nuclear reactors.

Robert C. Seal is the Facility Representative at the Advanced Test Reactor, located at the Idaho National Engineering and Environmental Laboratory Test Reactor Area, for the Department of Energy Idaho Operations Office (DOE-ID). He earned a Bachelor of Science Degree in Industrial Technology at the University of Idaho in 1999 and has commenced graduate studies in industrial safety at the University of Idaho. Mr. Seal has over 30 years nuclear operational experience in Department of Energy and United States Navy. He has worked at the Idaho Operations Office since retiring from the United States Navy 1991, and has been a Facility Representative at the Test Reactor Area since 1993.

Mr. Seal has participated as a team leader and team member for numerous Operational Readiness Reviews, Readiness Assessments, Operational Assessments, Accident Investigations, and other operational related assessments and evaluations. In addition to his duties as a Facility Representative Mr. Seal has served as the DOE-ID Conduct of Operations Program Manager since 1994 and as the DOE-ID Facility Representative Program Manager since 1999. During his 24 years of naval service Mr. Seal was directly involved in all aspects of operation, maintenance,

training, and radiological controls associated with shipboard and prototype naval nuclear propulsion facilities.

Appendix II

Criteria and Review Approach Document

Phase II ISMS Core Expectations

The following eight Core Expectations (CE) will be considered during the Phase II assessment of INEEL ISMS implementation. This set of CEs is based on the fact that the ID Manager has formally approved the ISMS Description. This acknowledges that contractor ISMS programs are satisfactory at the corporate or site level. Any comments that affect the adequacy of the safety management programs should be resolved and incorporated before the Phase II review occurs.

1. An integrated process has been established and is utilized to identify and prioritize specific mission discrete tasks, mission process operations, modifications and work items. (CE II-1)
2. The full spectrum of hazards associated with the Scope of Work is identified, analyzed, and categorized. Those individuals responsible for the analysis of the environmental, health and safety, and worker protection hazards are integrated with those personnel assigned to analyze the processes. (CE II-2)
3. An integrated process has been established and is utilized to develop controls that mitigate the identified hazards present within a facility or activity. The set of controls help ensure adequate protection of the public, worker, and the environment and are established as agreed upon by DOE. These mechanisms provide integration, which merge together at the workplace. (CE II-3)
4. An integrated process has been established and is utilized to effectively plan, authorize and execute the identified work for the facility or activity. Both workers and management demonstrate a commitment to ISMS. These mechanisms demonstrate effective integration. (CE II-4)
5. A process has been established and is utilized which ensures that mechanisms are in place which can ensure continuous improvements are implemented through an assessment and feedback process, which functions at each level of work and at every stage in the work process. (CE II-5)
6. Clear and unambiguous roles and responsibilities are defined and maintained at all levels within the facility or activity. Facility or activity line managers are responsible and accountable for safety. Facility or activity personnel are competent commensurate with their responsibility for safety. (CE II-6)
7. DOE ISMS procedures and mechanisms are established which can ensure that work is formally and appropriately authorized and performed safely. DOE line managers should be involved in the review of safety issues and concerns and should have an active role in authorizing and approving work and operations. (CE II-7)

8. DOE ISMS procedures and mechanisms are established which can ensure those hazards are analyzed, controls are developed, and that feedback and improvement programs are in place and effective. DOE line managers are using these processes effectively, consistent with FRAM and FRA requirements. (CE II-8)

Each CRAD objective includes a reference to the specific ISMS CE that it addresses. The referenced CE, as delineated in the ISMS Guide 450.4-1 and the ISMS Verification Team Leader's Handbook, is included in parenthesis after the statement of the objective.

DEPARTMENT OF ENERGY (DOE)

OBJECTIVE: DOE.1 DOE procedures and mechanisms are established to help ensure that hazards are analyzed; controls are developed; work is formally and appropriately authorized and performed safely; and feedback and improvement programs are in place and effective. DOE line managers are using these processes effectively, consistent with FRAM and FRA requirements, and are involved in the review of safety issues and concerns and have an active role in authorizing and approving work and operations. (CE II-7, CE II-8)

CRITERIA:

10. DOE procedures and/or mechanisms are in place that establish a process for confirming readiness and authorizing operations.
11. DOE procedures and/or mechanisms are established to help ensure that the safety management system is properly implemented and line management oversight of the contractor's worker, public, environment, and facility protection programs is performed.
12. DOE procedures and/or mechanisms require day-to-day operational oversight of contractor activities through Facility Representatives.
13. DOE procedures and/or mechanisms are established to help ensure the implementation of quality assurance programs and ensure that contractors implement quality assurance programs.
14. DOE procedures and/or mechanisms are in place to help ensure that the contractor's hazard analysis covers the hazards associated with the work and is sufficient for selecting standards.
15. DOE procedures and/or mechanisms are in place in which DOE directs the contractor to propose facility or activity-specific standards tailored to the work and the hazards. DOE procedures require that appropriate safety requirements in necessary functional areas are included in contracts.
16. DOE procedures and/or mechanisms are in place that direct DOE line manager oversight to ensure that implementation of hazards mitigation programs and controls are established.
17. DOE procedures and/or mechanisms are in place that direct the preparation of the authorization basis documentation and oversee the implementation by the contractor. Procedures for development, review, approval, maintenance, and utilization of Authorization Agreements are implemented.
18. DOE procedures and/or mechanisms require that contractors develop a lessons-learned program and monitor its implementation. A process is established for reviewing occurrence reports and approving proposed corrective action reports. A DOE process is established and

effectively implemented to continuously improve efficiency and quality of operations. Corrective actions are developed, implemented, and tracked in order to profit from prior experience and the lessons learned. DOE provides effective line oversight of the contractor's self-assessment programs.

APPROACH:

Record Review: Review documents pertaining to the implementation of DOE at IFF and SMC documents such as the, "DOE Integrated Safety Management Functions, Responsibilities and Authorities" to assess that line management is responsible for safety, and that their responsibility is clearly defined in roles and responsibilities.

Review documents relating to the implementation of DOE programs at IFF and SMC related to "Environment, Safety, Health and Quality Assurance Oversight" and "Independent Assessment." As possible, sample select surveillance reports for the IFF and SMC to determine if mechanisms are established to help ensure line management performs oversight of the contractor's ISMS. Review documentation pertaining to the ID Oversight, Review Schedules, and reported results to assess the adequacy of this oversight at IFF and SMC. Review ID Facility Representative (FR) Position Descriptions, Performance Agreements, and FR reports and oversight documentation to determine if mechanisms are in place to require day to day operational oversight by FRs.

Review documentation pertaining to the implementation of IFF and SMC of documentation on the "Quality Assurance Program" and Quality Program Plans (QPPs) to determine if they help ensure the implementation of quality assurance program by ID and the Contractor. Review documents such as ID Notice 420.A1, "Safety Basis Review and Approval Process" to determine if this mechanism is sufficient and tailored to facility work and hazards.

Review documentation related to the implementation at IFF and SMC of activities such as "DOE-ID Performance Measure, Trend Analysis, and Communications" to determine if this mechanism requires contractors to develop a lessons-learned program and monitor its implementation. Review the documentation pertaining to the results of the implementation for IFF and SMC, "DOE-ID Issue Management," to evaluate adequacy of implementation to continuously improve efficiency and quality of operations. Review documentation on the "DOE-ID Self-Assessment" to determine the adequacy of the implementation of the ID management self-assessment program at IFF and SMC.

Interviews: Interview Facility Directors and Site Area Directors and discuss work authorization and performance to determine if there are adequate mechanisms to ensure that work is properly authorized at all levels for IFF and SMC.

Interview DOE and Contractor Line Management personnel at all levels and discuss the IFF and SMC oversight programs. Discuss the Facility Representative (FR) programs with facility representatives and contractor personnel to determine if the FR program is effective. Discuss oversight and assessment programs with DOE staff, to assess their understanding of line management responsibility for safety and clear roles and responsibilities.

Interview DOE personnel such as Facility Directors, and other Division Directors to assess their review and approval of the results of the contractor's ISMS implementation, their understanding of the ISMS procedures and principles, their oversight of the contractor's self-assessment programs, and the DOE-ID management self-assessment program at IFF and SMC.

Observations: As possible, observe IFF and SMC facility representative and DOE staff oversight activities. These activities could include such activities as: "Environment, Safety, Health and Quality Assurance Oversight" activity, the review of Occurrence Reports by DOE ID personnel, "walkdowns" of the facilities with the FR as possible, Facility Director Conference Calls, Facility Director staff meetings, and interface with the contractor to determine line management understanding and awareness of operations.

Department of Energy Resolution of EH Items

This incorporates the recently mandated requirements to assess the Resolution of Items identified by DOE-EH. This CRAD adapts the combined objective principles of those requirements.

OBJECTIVE:

EH.1 The process for addressing and resolving safety issues identified by EH-2 as outlined in directives and procedures has been effectively applied.

CRITERIA:

1. The directives and implementing documents provide for a consistent and disciplined process, with clear assignment of responsibilities and authorities for developing and implementing Corrective Action Plans (CAPs) in response to issues identified by EH-2. (As adapted from mandated EH Requirements)
2. Directives and procedures include requirements for (1) the preparation of formal CAPs in response to EH-2 issues; (2) elevation of safety, technical, managerial, budget, prioritization, timeliness, inadequate response or other issues for resolution; and (3) effective use of a Corrective Action Tracking System; and identification and dissemination of lessons learned consistent with ISM implementation. (As adapted from mandated EH Requirements)
3. DOE field offices have a process for ensuring that contractors do what is necessary to meet obligations of this program. (As adapted from mandated EH Requirements)
4. Reviews were done, corrective action plans were developed, and any issues were pointed out for improvement. Each organization understands its responsibility and did their part in conducting reviews and developing and approving corrective action plans within established time frames.
5. Safety issues were addressed, resolved, and verified adequately and in a timely manner. Each organization did their part in implementing, reviewing, and closing issues, and closure was independently verified.
6. Resultant corrective actions are being applied to similar hazardous conditions at other facilities, sites, or programs.
7. Repeated problems of the same type have not been identified in subsequent reviews at the same site/facilities.

APPROACH:

Record Review: Review the INEEL identified issues, a sample of the Office of Oversight assessment reports for INEEL issued since April 1999, and a sample of legacy issues identified and tracked by INEEL. Review a sample of documentation for closure of identified issues.

Interviews: Interview DOE-ID personnel responsible to discuss how particular issues were handled and whether any problems were identified in the process. If problems were identified, how were these addressed, and are there any recommendations for improvement in the process. Also, the process for reviewing and applying lessons learned at other sites will be discussed.

Observations: As possible, observe actual meetings involving the development of CAPs within and between contractors and the DOE-ID office, and between the DOE-ID and HQ organizations, to observe the practical application and results of the procedures. As possible, observe the DOE-ID process to validate closure of the contractor's issues.

HAZARD IDENTIFICATION AND STANDARD SELECTION (HAZ)

OBJECTIVE: HAZ.1 The full spectrum of hazards associated with the Scope of Work is identified, analyzed, and categorized. Those individuals responsible for the analysis of the environmental, health and safety, and worker protection hazards are integrated with personnel assigned to analyze the processes. An integrated process has been established and is utilized to develop controls that mitigate the identified hazards present within a facility or activity. The set of controls are used to ensure adequate protection of the public, worker, and the environment and are established as agreed upon by DOE. These mechanisms demonstrate integration, which merge together at the workplace. (CE II-2, CE II-3)

CRITERIA:

7. Procedures and/or mechanisms are in place and utilized by personnel to ensure hazards associated with the work throughout the facility have been identified and analyzed. The resulting documentation is defined, complete, and meets DOE expectations. The execution of these mechanisms ensure personnel responsible for the analysis of environmental, health and safety concerns are integrated with those assigned to analyze the hazards for the facility or activity. The use of these mechanisms ensure direction and approval from line management and integration of the requirements.
8. Procedures and/or mechanisms are in place and utilized by personnel that describe the interfaces, roles and responsibilities of those personnel who identify and analyze the hazards of the scope of work. Personnel assigned to accomplish those roles are competent to execute those responsibilities.
9. Procedures and/or mechanisms are in place to develop, review, approve and maintain current all elements of the facility Authorization Basis Documentation with an integrated workforce.
10. Procedures and/or mechanisms that identify and implement appropriate controls for hazards mitigation within the facility or activity are developed and utilized by workers and approved by line managers. These procedures/mechanisms reflect the set of safety requirements agreed to by DOE.
11. Standards and requirements are appropriately tailored to the hazards.
12. Procedures and/or mechanisms are in place to effectively and accurately implement all aspects of the Authorization Basis.

APPROACH:

Record Review: Review the documents that govern the conduct, review, and approval of facility hazard analysis such as: Technical Safety Requirements MCP-2450 "Technical Safety Requirements", Fire Hazards Analysis (FHA) MCP-579 "Fire Hazards Analysis", Safety Analysis PDD-22 "Safety Analysis" and PRD-164 "Safety Analysis for Non-Nuclear,

Radiological, and Other Industrial Facilities”, and MCP-3680 “Environmental Aspect Evaluation and Maintenance” (EAE) to verify that these documents conform to the hazard analysis requirements.

Review a sample of hazard control documents to verify safety controls are provided for the hazards identified and that the control strategy encompasses a hierarchy of 1) hazard elimination, 2) engineering controls, 3) administrative controls, and 4) personnel protective equipment. Typical documents include, Safety Analysis Reports (SARs), Technical Safety Requirements (TSRs), Health and Safety Plans (HASPs), Auditable Safety Analysis (ASA), Fire Hazards Analysis (FHA), Criticality Safety Evaluation (CSE), etc.

Review procedures and documentation such as that pertaining to field verifications for activities/processes such as: STD-101 “Integrated Work Control Process,” Radiological Work Permits (MCP-7 “Radiological Work Permit”), operations procedures (such as MCP-3480 “Environmental Instructions for Facilities, Processes, Materials, and Equipment), Hazards Identification and Control documents (MCP-3562 “Hazards Identification and Control of Operational Activities” or MCP-3571 “Independent Hazard Review”) to ensure accurate and effective implementation of Authorization Basis documentation requirements.

Where appropriate, review the process used to resolve Unreviewed Safety Questions (USQs) to ensure new tasks are being evaluated against the approved authorization basis as required by MCP-123, “Unreviewed Safety Questions.” Review completed USQ or in progress USQ implementation documentation.

The primary focus of this section of the review (HAZ) is the identification of hazards and development, review, and approval of Authorization Basis documentation at the facility level. Hazard identification and controls for individual work items or activities will be evaluated using the Operations (OP) CRAD.

Interviews: Interview personnel responsible for the identification and analysis of work hazards including personnel responsible for ALARA review requirements. For example, this should include personnel responsible for USQ determination, procedure technical reviews, etc. Interview personnel responsible for developing and implementing hazard controls and/or Authorization Basis Documentation at the facility level. This should include personnel such as those responsible for SAR/TSR, FHA, CSE, and EAE preparations and implementation. Observations: As possible, observe the actual preparation and field implementation of the analysis of hazards. In nuclear facilities, this should include an Unreviewed Safety Question Determination (USQD), preparation of a JHA, etc.

As possible, observe the actual processes development, review, approval, and implementation of SAR/TSR, and other Authorization Basis Documents as available. Where appropriate, observe that new tasks are being evaluated to determine if the tasks fall within the safety envelope described in the approved authorization basis as required by MCP-123, “Unreviewed Safety Questions.”

MANAGEMENT (MG)

OBJECTIVE: MG.1 An integrated process has been established and is utilized to identify and prioritize specific mission discrete tasks, mission process operations, modifications and work items. An integrated process has been established that ensures that mechanisms are in place to ensure continuous improvements are implemented through an assessment and feedback process, which functions at each level of work and at every stage in the work process. (CE II-1, CE II-5)

CRITERIA:

17. Procedures and/or mechanisms that require line management to identify and prioritize mission-related tasks and processes, modifications, and work items are in place and utilized by personnel.
18. Procedures and/or mechanisms are in place and utilized by personnel to ensure identified work (i.e., mission-related tasks and process, processes or facility modification, maintenance work, etc.) can be accomplished within the standards and requirements identified for the facility.
19. Procedures and/or mechanisms are in place and utilized by personnel to collect feedback information such as self-assessment, monitoring against performance objectives, occurrence reporting, and routine observation. Personnel assigned these roles are competent to execute these responsibilities.
20. Procedures and/or mechanisms are in place that develops feedback and improvement information opportunities at the site and facility levels as well as the individual maintenance or activity level. The information that is developed at the individual maintenance or activity level is utilized to provide feedback and improvement during future similar or related activities. Corrective actions include identifying the causes and working to prevent recurrence.
21. Procedures and/or mechanisms are in place and utilized by managers to identify improvement opportunities. Evaluation and analysis mechanisms should include processes for translating operational information into improvement processes and appropriate lessons learned.
22. Procedures and/or mechanisms are in place and utilized by managers to consider and resolve recommendations for improvement, including worker suggestions.
23. Procedures and/or mechanisms are in place, which include a process for oversight that ensures that regulatory compliance is maintained.
24. The contractor has mechanisms in place to direct, monitor, and verify the integrated implementation of ISMS as described in the ISMS Description. Implementation and

integration expectations and mechanisms are evident throughout all institutional line and support organizational functions.

APPROACH:

Record Review: Review the facility or activity long-range planning documentation. This should include such items as summary schedules, plan of the week schedules, long-range schedules, modification schedules, etc.

Review the implementation of the mechanisms that line managers utilize to identify and prioritize mission-related tasks and processes, modifications, and work items. All direct funded work is controlled by procedures found in MCP-14, "Graded Approach to Defining Project Controls

Review the procedures and/or mechanisms that are utilized by the facility or activity to ensure that identified work is accomplished in accordance with established standards and requirements. Standards and requirements are rolled down to the facility level for implementation utilizing the process described in MCP-2447, "Requirements Management." Review facility processes for ensuring standards and requirements promulgated by the MCP-2447 process are reflected in activities at the facility.

Review the implementation of INEEL Configuration Management Program described in PLN-485, "Project Plan for the Configuration Management Project," PRD-115, "Configuration Management" and STD-107, "Configuration Management Program." Review MCP-2811, "Design and Engineering Change Control," MCP-3630, "Computer System Change Control," MCP-3572, "System Design Descriptions," MCP-3573, "Validating, Controlling, Using, and Revising Vendor Data" and MCP-2377, "Development, Assessment and Maintenance of Drawings," to establish the facility/activity level configuration management processes at the INEEL. Review training records of personnel in the configuration management subject area to determine that they meet competency standards.

Review the performance monitoring documentation for the feedback and continuous improvement process. This should include such documents as occurrence reports, deficiency reports, results of post-job reviews, safety observer reports, Issue Communication and Resolution Environment (ICARE) reports and reports of self-assessments and independent assessments. Ensure occurrence reports and ICARE entries are being completed in accordance with the requirements specified in MCP-190, "Event Investigation and Occurrence Reporting" and MCP-2723, "Reporting and Resolving Employee Safety Concerns & Suggestions," respectively. Process deficiencies should be addressed by following the process described in MCP-598, "Process Deficiency Resolution."

Lessons learned are managed and processed in accordance with the requirements described in MCP-192, "Lessons Learned Program." Management self-assessments are conducted in accordance with MCP-8, "Self-Assessment Process for Continuous Improvement." The process of independent assessment of facilities and activities is described in MCP-552, "Conduct of Independent Oversight Assessments." The FY-00 schedule of independent oversight assessment

activities can be found on the QA and Conduct of Operations internal homepage at URL: <http://home.inel.gov/qa&coo/ipa.html>. The Facility Excellence Program, described in PDD-1011, is a structured means of regularly assessing facilities for compliance in any of these areas.

Review procedures and documentation for work control to determine that adequate feedback and improvement mechanisms are in place at the individual maintenance or activity level. This should include documentation pertaining to the implementation of MCP-3003, "Performing Pre-Job Briefings and Post-Job Reviews," as the activity-level requirements document.

Review actual reports, results, schedules, and available data from these processes, as well as corporate processes and procedures, to evaluate the effectiveness of the implementation of these mechanisms. Specifically, evaluate the effectiveness of issue prioritization issue tracking identification and resolution of management system weaknesses associated with issues, and field follow-up, validation, and closure of corrective actions per MCP-598. For self-assessments, evaluate the implementation effectiveness of scheduled self assessment activities, including the analysis and entry of results into the appropriate tracking system as defined in MCP-8. Additionally review charters and output documentation from any corporate/site wide ISMS coordinating committees.

Interviews: Interview management personnel responsible for the identification and prioritization of work. This should include personnel such as those responsible for long-range planning documentation, schedule preparation, etc.

Interview personnel responsible for administering the feedback and continuous improvement process. This should include personnel such as those responsible for occurrence reporting, lessons learned preparation, preparation, ICARE entries, self-assessment, and oversight. Interview personnel responsible for capturing and utilizing feedback and improvement information during individual maintenance or other work activities. Interview line management to determine level of knowledge and involvement in the implementation of programs and activities such as the ICARE process.

Interview personnel and responsible managers in the configuration management subject area. Interview line managers to assess the establishment of clear roles and responsibilities and the understanding of the configuration management support provided to line managers. Interview chairman and key members of ISMS coordinating committees.

Observations: Observe work definition and planning activities to ensure that requirements specified by documents such as the Requirements Management process (MCP-2447) are considered and implemented at the activity level.

As possible, observe an Operational Safety Board (OSB) meeting. If possible, observe a program or project Change Control Board meeting. Observe a Pre-Job Briefing and a Post-Job Review. Observe any critiques, which may arise throughout the course of the observation process.

Observe events such as the development of an Engineering Change Form (ECF), Computer System Change Form (CSCF), or Document Action Request (DAR) for a technical document.

Observe any site level ISMS committee meetings.

OBJECTIVE: MG.2 Clear and unambiguous roles and responsibilities are defined and maintained at all levels within the facility or activity. Managers at all levels demonstrate a commitment to ISMS through policies, procedures, and their participation in the process. Facility or activity line managers are responsible and accountable for safety. Facility or activity personnel are competent commensurate with their responsibility for safety. (CE II-6)

CRITERIA:

13. Procedures and/or mechanisms are in place and utilized by personnel that define the roles and responsibilities for the identification and prioritization of mission-related tasks and processes, facility or process modification, and other related work items.
14. Procedures and/or mechanisms are in place that define clear roles and responsibilities within the facility or activity to ensure that safety is maintained at all levels.
15. Facility or activity procedures specify that line management is responsible for safety.
16. Procedures and/or mechanisms are in place and utilized to ensure that personnel who supervise work have competence commensurate with their responsibilities.
17. Procedures and/or mechanisms are in place and utilized to ensure that personnel performing work are competent to safely perform their work assignments.
18. The contractor is using a process to establish, document and implement safety performance objectives, performance measures, and commitments in response to DOE program and budget execution guidance.

APPROACH:

Record Review: Review contractor organization charts and documents describing the contractor matrix management concept. Review organizational documentation such as PDD-1015 "Research and Development Operations," PRD-5060, "Occupational Safety Functions, Roles, Responsibilities, and Interfaces," MCP-3652, "Roles and Responsibilities of Idaho Falls Facilities Tenants" and other similar documents for SMC to determine the personnel positions with responsibility associated with this objective. Ensure roles and responsibilities for personnel responsible for safety are clearly defined and understood and properly executed. This review could include position descriptions, Form-325.01 "Employee Position Description" and other applicable MCPs that describe roles and responsibilities related to ensuring safety are maintained. The review should consider personnel in line management and staff positions and should evaluate whether line managers are responsible for safety.

Review the procedures established such as PDD-13 "Training and Qualification Program," MCP-27 "Preparation and Administration of Individual Training Plans," and MCP-33 "Training Qualification and Certification" to ensure that managers and workers are competent to safely perform work. Review the personnel records which should include the "Training and

Implementation Matrix” (TIM), “Individual Training Plans” and “Employee Training History,” to identify the individual qualifications that meet the elements of the position descriptions. Review the applicable records of qualification and certification. Review any training or qualification material, including training and qualification manuals such as Manual 12 and the associated processes that support gaining or verifying competence to fill the positions.

Review the process established to establish, document and implement safety performance objectives that support DOE program and budget execution guidance.

Interviews: Interview selected personnel at all levels of facility or activity management who are identified by the record review above. Verify their understanding and commitment to ensuring that safety is maintained for all work at the facility or activity. Interview a selected number of supervisors and workers to determine their understanding of competency requirements and their commitment to performing work safely. Interview contractor senior managers to determine their knowledge of the ISMS process and their commitment and participation in the process. Interview contractor line managers who are responsible for the establishment and implementation of the safety performance measures and safety objectives.

Observations: As possible, observe training being delivered for key programs such as hazards identification and analysis. Observe scheduled activities that demonstrate that clear roles and responsibilities are established and understood, that line managers are actively involved with decisions affecting safety, and that managers and workers are competent to perform their duties.

As possible, observe activities such as weekly planning meetings, plans of the day, event critiques, safety training, OSB meetings, Pre-job briefs, Site Operations Council (SOC) meetings, Corrective Action Review Boards (CARBS) and safety meetings that may provide good examples of the safety training and decision making process. Activities such as facility/process operations, testing, and maintenance also provide opportunities to observe personnel in the execution of roles and responsibilities, their understanding of procedures, awareness of hazards and management commitment to safety.

OPERATIONS (OP)

OBJECTIVE: OP.1 An integrated process has been established and is utilized to effectively plan, authorize and execute the identified work for the facility or activity. (CE II-4)

CRITERIA:

16. Procedures and/or mechanisms are in place and utilized to ensure that work planning is integrated at the individual maintenance or activity level, and work planning fully analyzes hazards and develops appropriate controls.
 17. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to confirm that the facility or activity and the operational work force are in an adequate state of readiness prior to authorizing the performance of the work.
 18. Procedures and/or mechanisms are in place and utilized which ensure that there is a process used to gain authorization to conduct operations.
 19. Procedures and/or mechanisms are in place and utilized which ensure that safety requirements are integrated into work performance.
 20. Procedures and/or mechanisms are in place and utilized which ensure those adequate performance measures and indicators, including safety performance measures are established for the work.
6. Workers actively participate in the work planning process.

APPROACH:

Record Review: As applicable, review documentation and/or mechanisms that govern the work control process for planning, authorizing, and conducting work such as STD-101 "Integrated Work Control Process," MCP-3562 "Hazard Identification, Analysis and Control for Operational Activities," MCP-3571 "Independent Hazard Review," PRD-5043 "Operational Safety Boards", PDD 1012 "Program Description Document for Environmental Management Ssystem" and MCP-3480 "Environmental Instructions for Facilities, Processes, Materials and Equipment." This review should assess the adequacy of the documents and the status of their implementation, to meet the requirements listed above and determine that the maintenance and work control process is effectively integrated into the facility/activity procedures. In particular, note the integration of hazard identification and controls, (i.e. chemical, electrical, radiological, waste streams, environmental) into the work planning process. Review documentation that describes roles and responsibilities for the work control process, worker involvement in all aspects of the activity, and the work authorization process. Controls for individual work items or activities such as Job Hazards Analysis (JHA), Radiation Work Permits (RWP), Hazard Profile Screen Checklist (HPSC), Work Control Forms (WCF), Confined Space Entry Permit, and operating procedures should also be evaluated.

As applicable, review the ALARA process to ensure the basic concepts of ALARA as well as any ALARA Committee recommendations are incorporated into the work control documentation.

Review the integration of subcontractor work control into the facility work control process. Evaluate the review of subcontractor work control documentation, the approval of the documentation, work authorization, and the oversight of subcontractor work in the facility.

Review the performance measures and performance indicators using the “INEEL Performance Measures and Trending Report,” MCP-3521 “Trending Center,” self -assessments conducted in accordance with MCP-8 “Self-Assessment Process for Continuous Improvement,” or the Facility Excellence Program PDD-1011 “Facility Excellence Program.” Determine if these tools provide information that is truly a direct indicator of how safely the work is being performed.

For RWMC, review the documentation pertaining to the processes used to prepare Authorization Agreements, MCP-3567 “Authorization Agreements with Authorization Basis List.” Review the Authorization Agreements for the selected facilities to determine if they are adequate, that they demonstrate effective integration, and that proper procedures were followed to prepare, review, and approve them.

Interviews: Interview personnel responsible for preparing, authorizing, performing, and measuring the performance of the work. This should include personnel such as those responsible for preparing and maintaining work control documents, hazard identification and control documents, the Plan of the Day (POD), equipment status files, pre-job briefings, and the conduct of facility or activity operations.

Interview personnel responsible for individual activity procedures and controls (e.g. JHAs, RWPs, HPSCs, WCFs, etc.) Verify adequate worker involvement at each step of the process.

Interview personnel responsible for the development and implementation of the self-assessment program including individuals who participate in self-assessments. For RWMC, interview those individuals responsible for development, maintenance, and approval of the Authorization Agreement. Interview members of the management team charged with adherence to the requirements listed within the Authorization Agreement.

Observations: Observe the actual authorization and performance of work activities. Observe a plan of the day or plan-of-the-week meeting. As possible, attend an Operational Safety Board (OSB) meeting or an Independent Hazard Review Group (IHRG) meeting with field verification that hazard controls specified by the hazards control documents are being implemented. As possible, Team members should observe the development of a maintenance work package as well as the field execution of a maintenance work package. Observation could include the pre-job brief, authorization by the managers to proceed, command and control of the work, review of safety requirements, etc.

As possible, observe work hazard identification activities (e.g. JHAs, RWPs, etc.) and the application of MCP-3562 during an operational procedure walk-down and review. Observe worker involvement in these processes.

Appendix III

ID Manager Appointing Memorandum

memorandum

Idaho Operations Office

Date: February 24, 2000

Subject: Revision to the Scope of the March Integrated Safety Management System Phase II Verification, Part II - (ISM-06-00)

- Ref: (a) Memorandum, Beverly Cook to R. Schepens, Subject: Appointment of Mr. Roy J. Schepens as Team Leader for the Idaho National Engineering and Environmental Laboratory Integrated Safety Management System Phase II Verification, Part II (OPE-ISM-01-00), dated January 18, 2000
- (b) Memorandum, Beverly Cook to R. Schepens, Subject: Revision to the Scope of the March Integrated Safety Management System Phase II Verification, Part II - (ISM-03-00), dated February 17, 2000

To: R. Schepens, Assistant Manager
High Level Waste
DOE-SR, Bldg. 704-C

Per Reference (a), I appointed you as the Team Leader for the Idaho National Engineering and Environmental Laboratory Integrated Safety Management System Phase II Verification, Part II. Reference (b) modified Section 4.0 of Reference (a). In light of the results of recent internal and external assessments of ISM implementation at the Idaho Nuclear Technology and Engineering Center (INTEC), I am again modifying the scope of your March Phase II ISM Verification.

After several weeks of internal and external assessments of the INTEC, the INTEC Site Area Director determined that the facility will not be ready for ISM Phase II verification by March 17, 2000. Therefore, BBWI has requested, and DOE-ID has approved, a delay in the INTEC Phase II verification until the May 2000 Phase II verification of the balance of INEEL facilities.

Therefore, in Reference (a), delete the eighth paragraph of Section 2.0 (paragraph begins with "The INEEL facilities within the scope..." and ends with "...reverification of the Operations objective."), and revise Section 4.0, paragraph a as follows:

- a. The scope of the ISMSV-II review includes the following INEEL Site Area/facilities and activities managed and operated by BBWI under Contract DE-AC07-99ID13727: all facilities at the Specific Manufacturing Capability (SMC), including the integration with the ID; Idaho Falls Facilities (IFF) not covered during the September 1999 Phase II

R. Schepens

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review; and the Operations CRAD at the Radioactive Waste Management Complex (RWMC). Other INEEL Site Areas and facilities are excluded from the scope of this review.

If you have any questions regarding the change to the scope of your review, please contact Mr. Roger Wilbur of my staff at 208-526-3508.

/s/

Beverly A. Cook
Manager